HCD-RV222

SERVICE MANUAL

E Model

Ver. 1.1 2005. 12

- HCD-RV222 is the tuner, deck, CD and amplifier section in MHC-RV222.

CD Section	Model Name Using Similar Mechanism	HCD-RV22
	CD Mechanism Type	CDM74-K4BD49 CDM74KS-KBD49
	Base Unit Name	BU-K4BD49
	Optical Pick-up Name	KSM-213DHAP
TAPE Section	Model Name Using Similar Machanism	HCD-RV22
	Tape Mechanism Type	CWM43FF13 CWM43FF25

SPECIFICATIONS

Amplifier section

The following measured at AC 120, 127, 220, 240 V 50/60 Hz

DIN power output (rated):
100 + 100 watts
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):
120 + 120 watts
(6 ohms at 1 kHz, 10% THD)

Inputs

GAME INPUT AUDIO L/R (phono jacks):
voltage 250 mV,
impedance 47 kilohms

GAME INPUT VIDEO (phono jack):
1 Vp-p, 75ohms

MIC (phone jack): sensitivity 1 mV,
impedance 10 kilohms

Outputs

PHONES (stereo phone jack):
accepts headphones of 8 ohms or more

VIDEO OUT (phono jack):
max. output level 1 Vp-p, unbalanced, Sync negative
load impedance 75 ohms

SPEAKER: accepts impedance of 6 to 16 ohms

CD player section

System: Compact disc and digital audio system

Laser: Semiconductor laser (λ=770 – 810 nm)
Emission duration: continuous

Frequency response: 2 Hz – 20 kHz (±0.5 dB)

Signal-to-noise-ratio: More than 90 dB

Dynamic range: More than 90 dB

Video color system format
NTSC, PAL

– Continued on next page –

MINI Hi-Fi COMPONENT SYSTEM

9-879-926-02
2005L04-1
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Sony Corporation
Home Audio Division
Published by Sony Engineering Corporation

SONY®

Tape deck section

Recording system	4-track 2-channel, stereo
Frequency response	50 – 13,000 Hz (±3 dB), using Sony TYPE I cassettes

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements	
Thai model:	220 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	180 watts
Dimensions (w/h/d) incl.projecting parts and controls	
Amplifier/Tuner/Tape/CD Section:	Approx. 280 × 327 × 425 mm
Mass	Approx. 10.1 kg
Supplied accessories:	Remote Commander (1) R6 (Size AA) batteries (2) AM loop antenna (1) FM lead antenna (1) Speaker pads (8) Video cable (1)

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

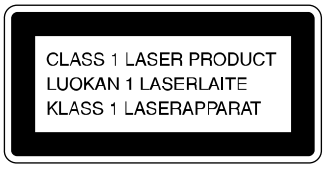
NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

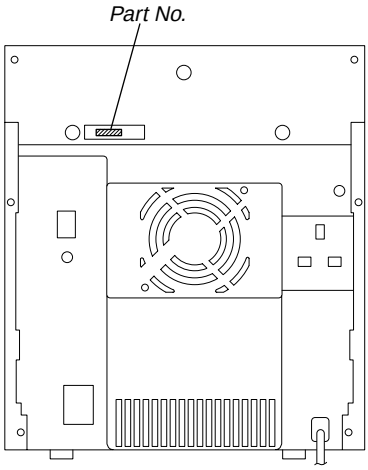
Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.



This appliance is claassified as a CLASS 1 LASER product. This label is located on the rear exterior.

MODEL IDENTIFICATION

– BACK PANEL –



MODEL	PARTS No.
RV222: E3, E15	4-254-384-0☐
RV222: TH	4-254-384-2☐
RV222: E12, SP	4-254-384-5☐

• Abbreviation
E3 : 240 V AC area in E model
E12 : 220 – 240 V AC area in E model
E15 : Iran model
SP : Singapore model
TH : Thai model

PLAYABLE DISC

You can playback the following discs on this system. The other discs cannot be played back.

List of playable discs

Format of discs	Disc logo
VIDEO CDs	
Audio CDs	
CD-R/CD-RW (audio data/MP3 files)	

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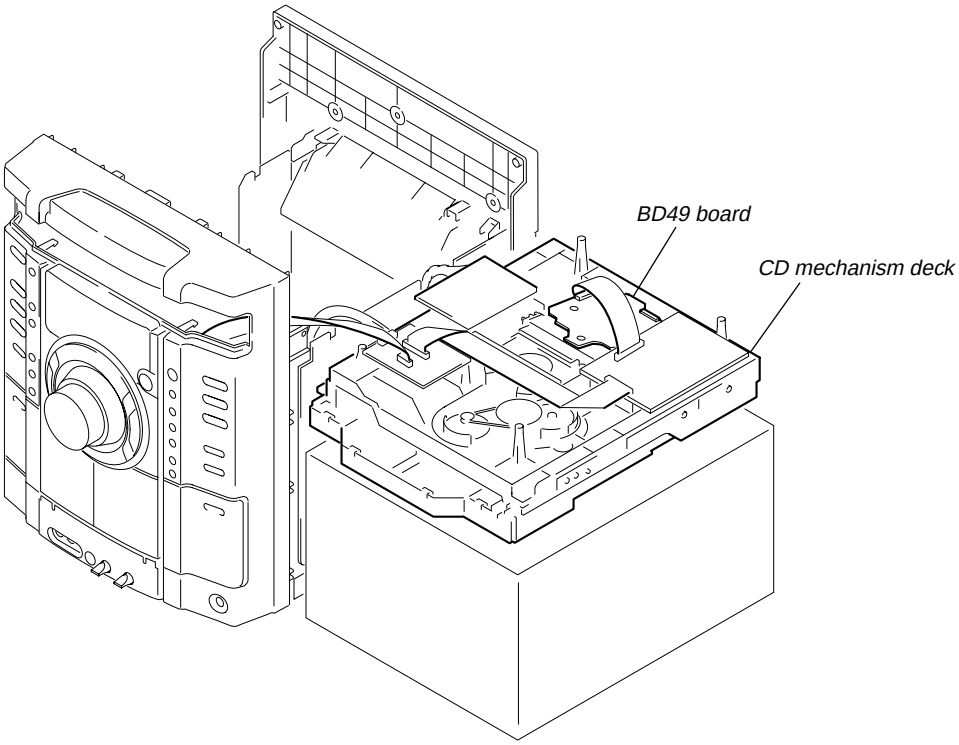
SECTION 1
SERVICE NOTE

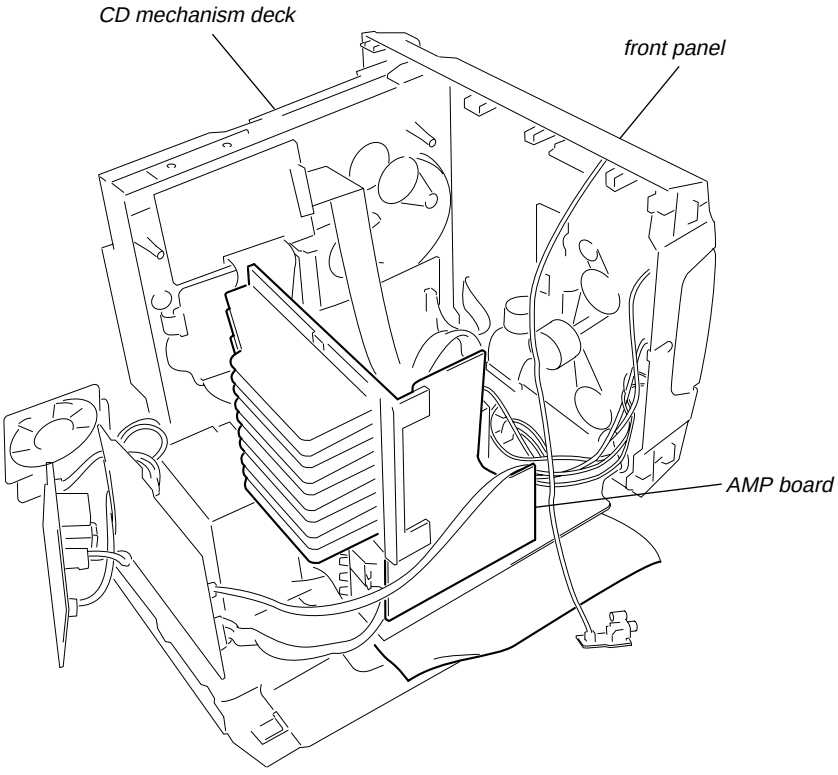
1-1. SERVICE POSITION OF CD MECHANISM DECK

Remove the CD mechanism deck and place it on top of the pedestal as shown.
Inspect the BD49 board in this set up.



1-2. SERVICE POSITION OF AMP BOARD

To inspect the AMP board, turn both of the front panel
and the CD mechanism deck so that the left side of the product faces down.



List of button locations and reference pages

How to use this page

Use this page to find the location of buttons and other parts of the system that are mentioned in the text.

Illustration number
TAPE A/B 35 (21, 22, 23, 27)
Name of button/part Reference page

Main unit

ALPHABETICAL ORDER

A – O

ALBUM + 18 (12, 15, 22)
ALBUM – 27 (12, 15, 22)
CD 37 (9, 11, 14, 15, 19, 22, 23)
CD SYNC 29 (22)
Deck A 30 (21)
Deck B 17 (21, 22, 23, 27, 29)
DISC 1 – 3 10 (12, 15, 39)
DISC SKIP/EX-CHANGE 12 (11, 12, 15, 22)
Disc tray 9 (11)
DISPLAY 2 (30, 31)
Display window 5
ECHO LEVEL 22 (27)
EFFECT ON/OFF 8 (24, 25)
ENTER 11 (15, 18, 25)
EQ BAND 7 (25)
GAME 34 (23, 25, 35)
GAME INPUT AUDIO L/R jacks 25 (23, 34)
GAME INPUT VIDEO jack 26 (34)
GAME MIXING 28 (26)
GROOVE 8 (24)
ILLUMINATION 3 (32)
KARAOKE/MPX 16 (26)
MIC jack 24 (26)
MIC LEVEL 23 (26)
Operation Dial (– EQ +/⏮ ⏭) 6 (12, 15, 22, 25)

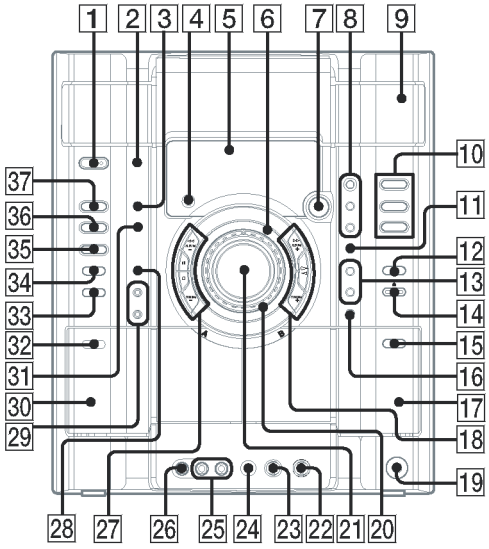
P – Z

P FILE 13 (25)
PHONES jack 19
PLAY MODE 31 (12, 15, 21, 22, 23, 27, 39)
Power illuminator 20 (32)
PRESET EQ 13 (24)
REC PAUSE/START 29 (22, 23, 26, 27)
Remote sensor 4
SURROUND 8 (25)
TAPE A/B 35 (21, 22, 23, 27)
TUNER/BAND 36 (18, 19, 23)
TUNING MODE 31 (18, 19, 39)
TUNING + 18 (18, 19)
TUNING – 27 (18, 19)
VIDEO/SAT* 33 (23, 35)
VOLUME control 21

BUTTON DESCRIPTIONS

I/⏻ (power) 1 (8, 19, 30, 35, 37, 39)
⏏ (eject) 14 (11)
PUSH ⏏ (deck B) (eject) 15 (21)
⏩ (fast forward) 18 (8, 12, 22)
▷ or ◁▷* (play) 18 (12, 21, 22)
⏸ (pause) 27 (8, 12, 22)
■ (stop) 27 (12, 22, 27, 39)
⏪ (rewind) 27 (8, 12, 22)
⏏ PUSH (deck A) (eject) 32 (21)

* MHC-RV55 only



Remote control

ALPHABETICAL ORDER

A – M

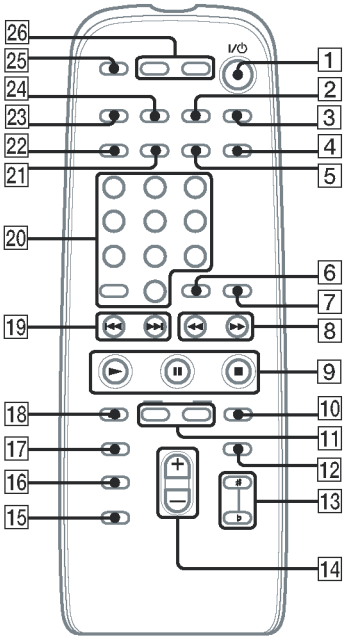
ALBUM +/– 11 (12, 15)
CD 21 (11, 15)
CLEAR 17 (16)
CLOCK/TIMER SELECT 26 (29, 30)
CLOCK/TIMER SET 26 (10, 28, 29)
DISC SKIP 10 (12, 15)
DISPLAY 3 (30, 31)
ENTER 12 (10, 15, 18, 28, 29)
EQ 16 (24)
FM MODE 2 (20)
FUNCTION 4 (11, 14, 15, 18, 19)
KARAOKE/MPX 15 (26)

N – Z

NEXT 19 (14)
Number buttons 20 (13, 14, 16)
ON SCREEN 6 (32)
PLAY MODE 24 (12, 15, 21)
PREV 19 (14)
REPEAT 2 (15)
SELECT 9
SLEEP 25 (28)
SPECIAL MENU 7 (16)
TAPE 22
TUNER BAND 5 (18, 19)
TUNER MEMORY 23 (18)
TUNING MODE 24 (18, 19)
VOLUME +/– 14 (28)

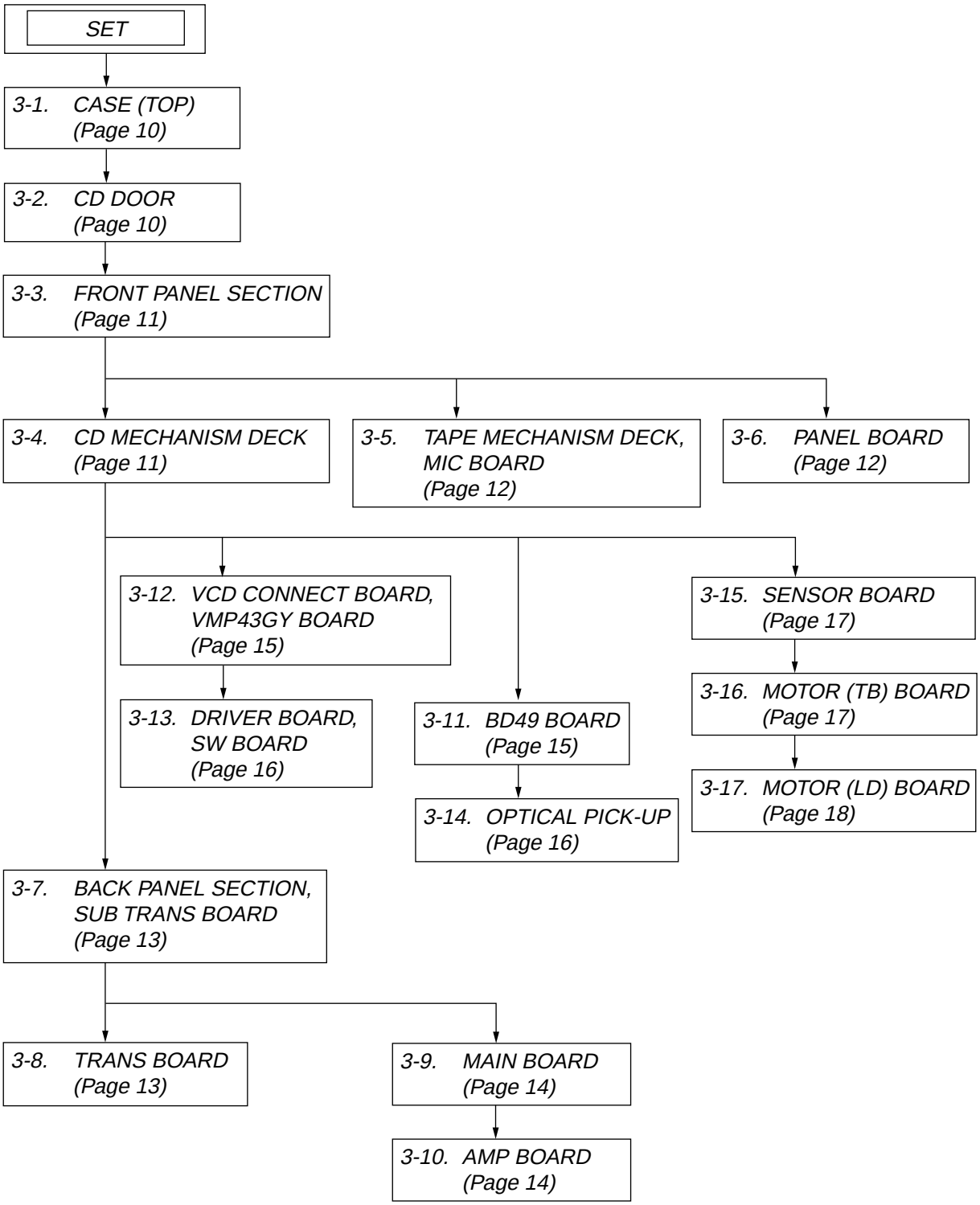
BUTTON DESCRIPTIONS

I/⏻ (power) 1 (8, 29)
◄◄/►► (rewind/fast forward) 8 (12, 22)
► (play) 9 (12, 21)
II (pause) 9 (12, 22)
■ (stop) 9 (12, 22)
KEY CONTROL ♯/♭ 13 (27)
RETURN ↩ 18 (14)
+/– (tuning) 19 (18)
I◄◄ /►►I (go back/go forward) 19 (10, 12, 22)



SECTION 3
DISASSEMBLY

Note : Disassemble the unit in the order as shown below.


SET
3-1. CASE (TOP) (Page 10)
3-2. CD DOOR (Page 10)
3-3. FRONT PANEL SECTION (Page 11)
3-4. CD MECHANISM DECK (Page 11)
3-5. TAPE MECHANISM DECK, MIC BOARD (Page 12)
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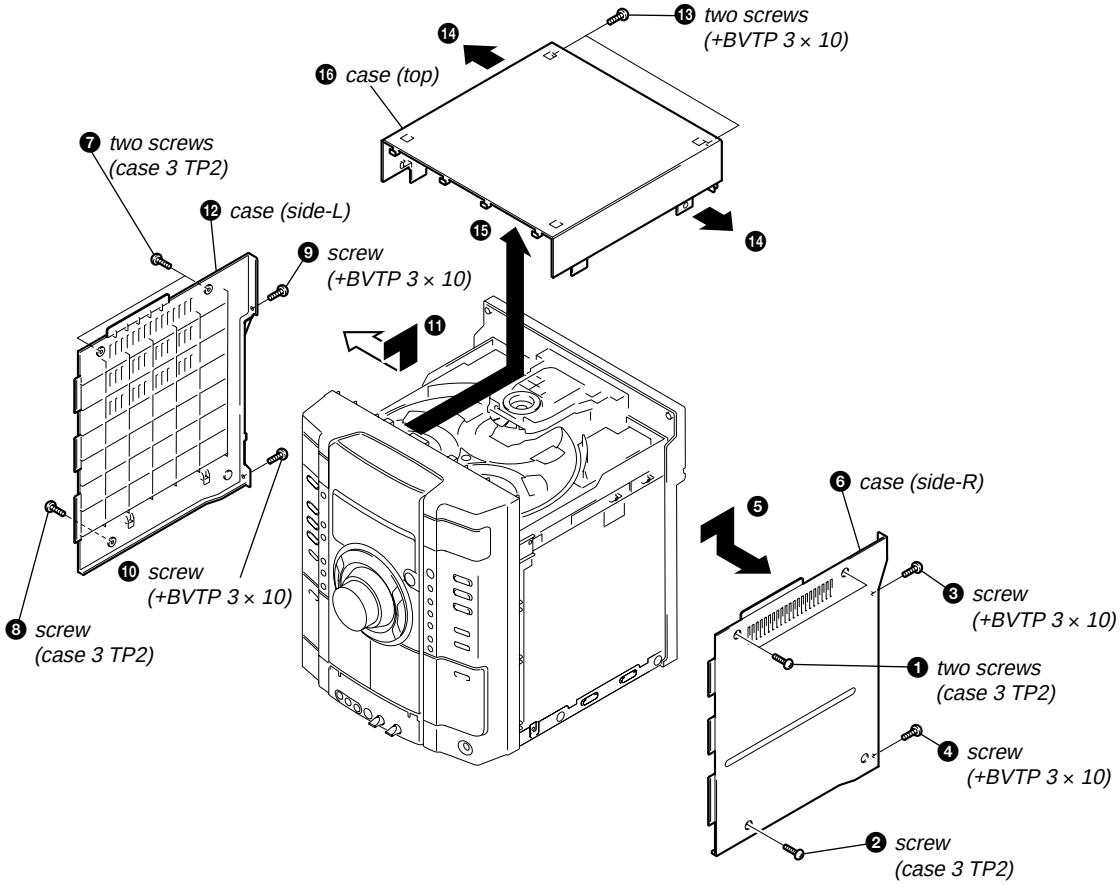
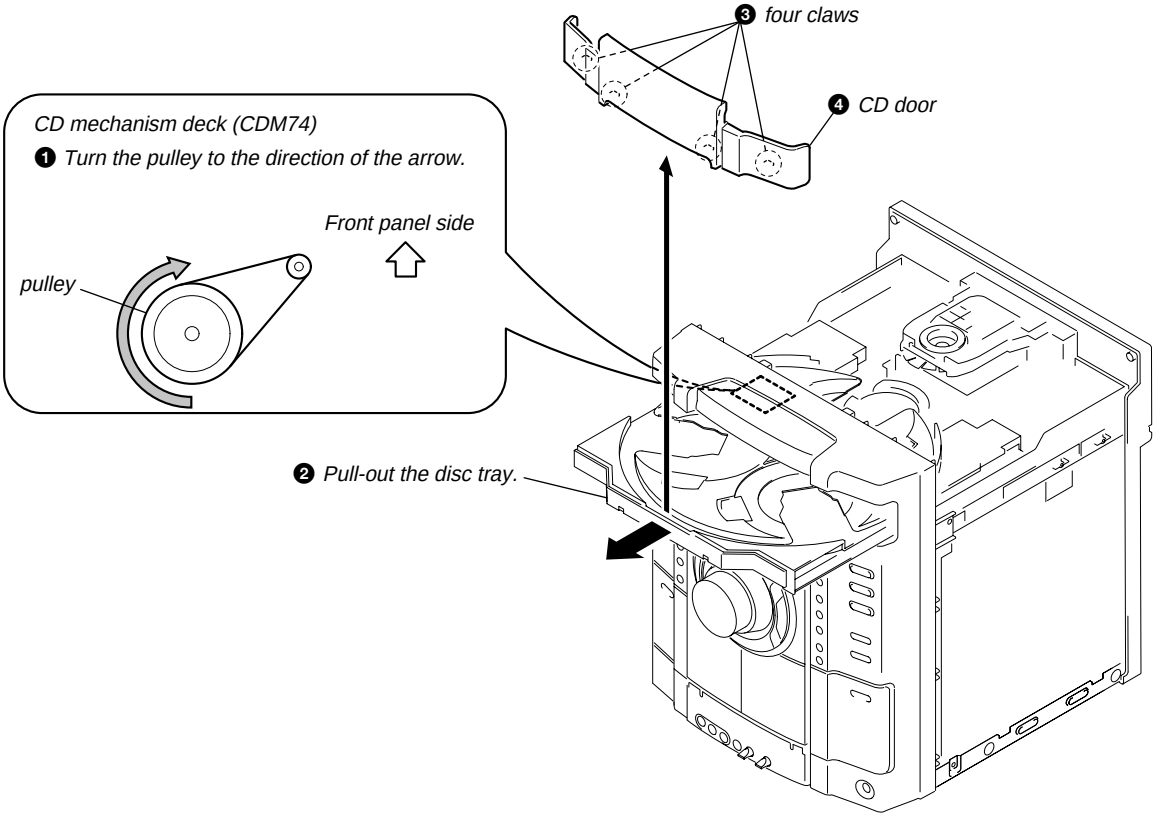
Note : Follow the disassembly procedure in the numerical order given.

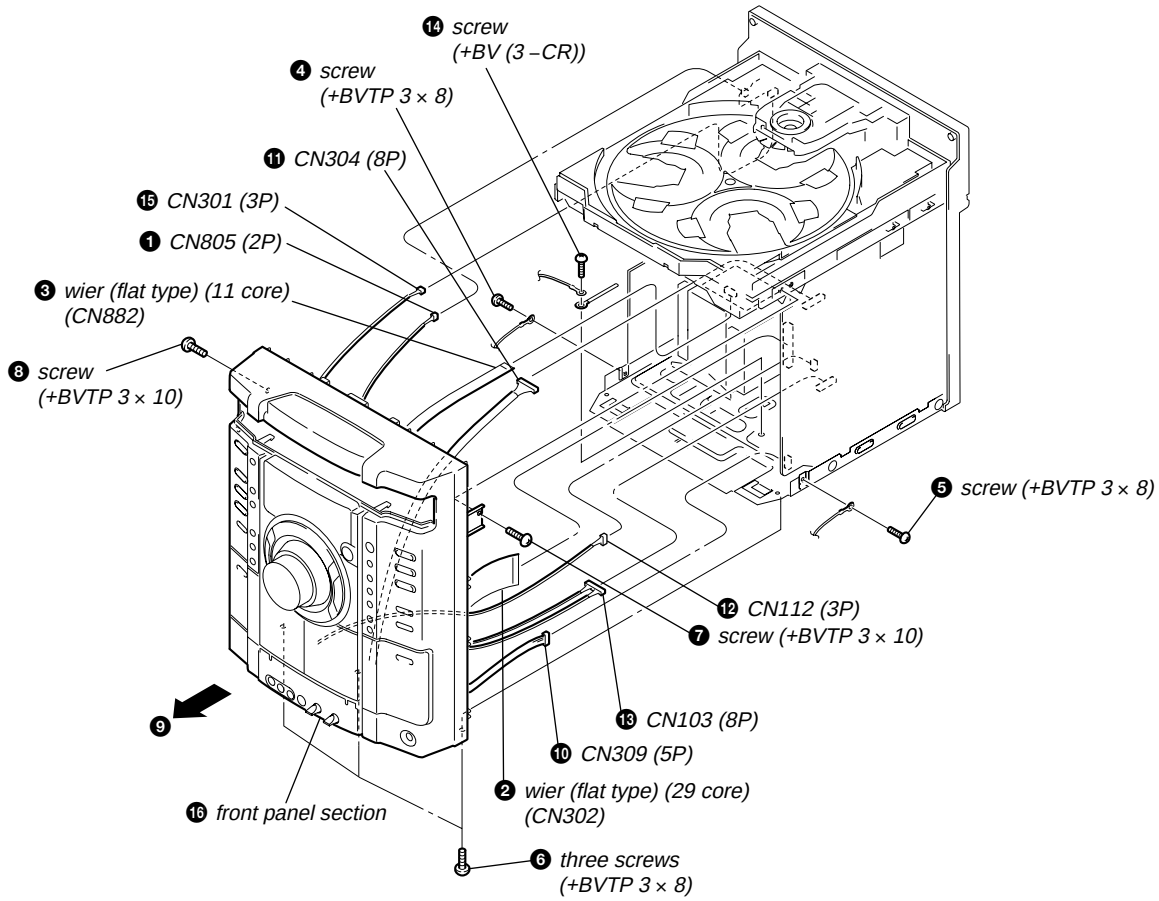
3-1. CASE (TOP)



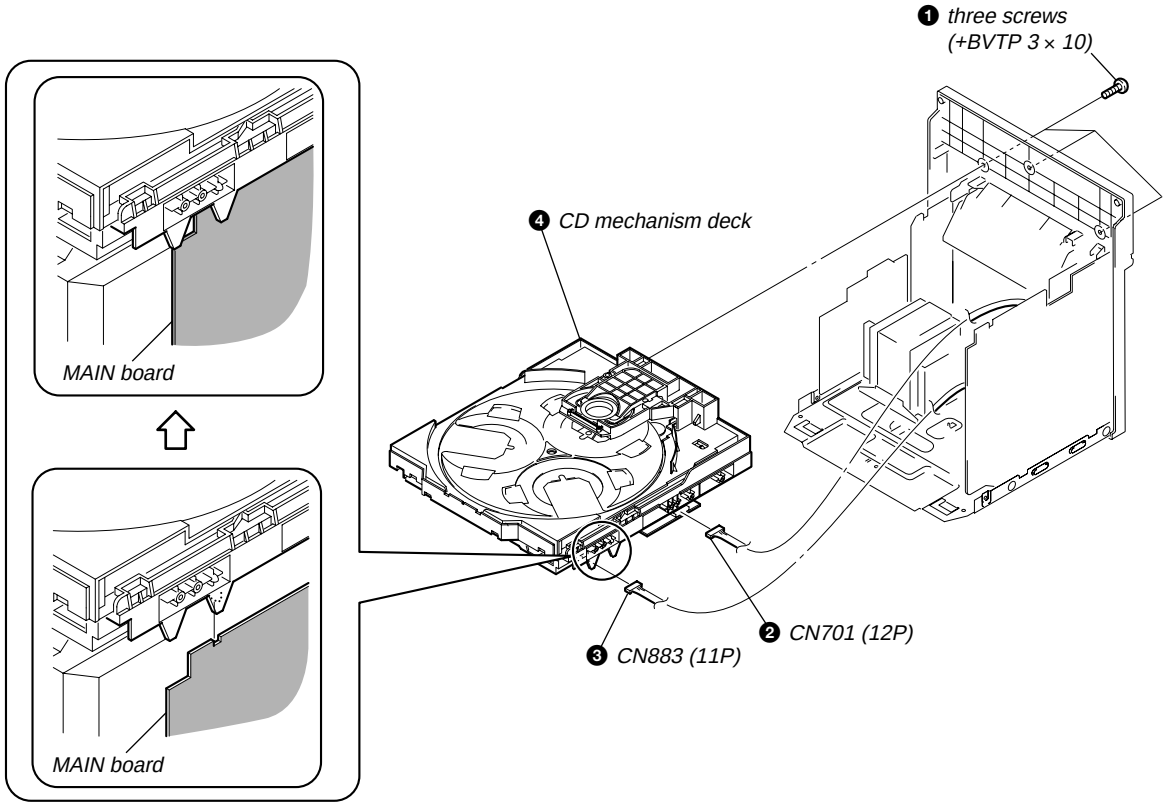
3-2. CD DOOR


❸ four claws
❹ CD door
CD mechanism deck (CDM74)
❶ Turn the pulley to the direction of the arrow.
Front panel side
pulley
❷ Pull-out the disc tray.

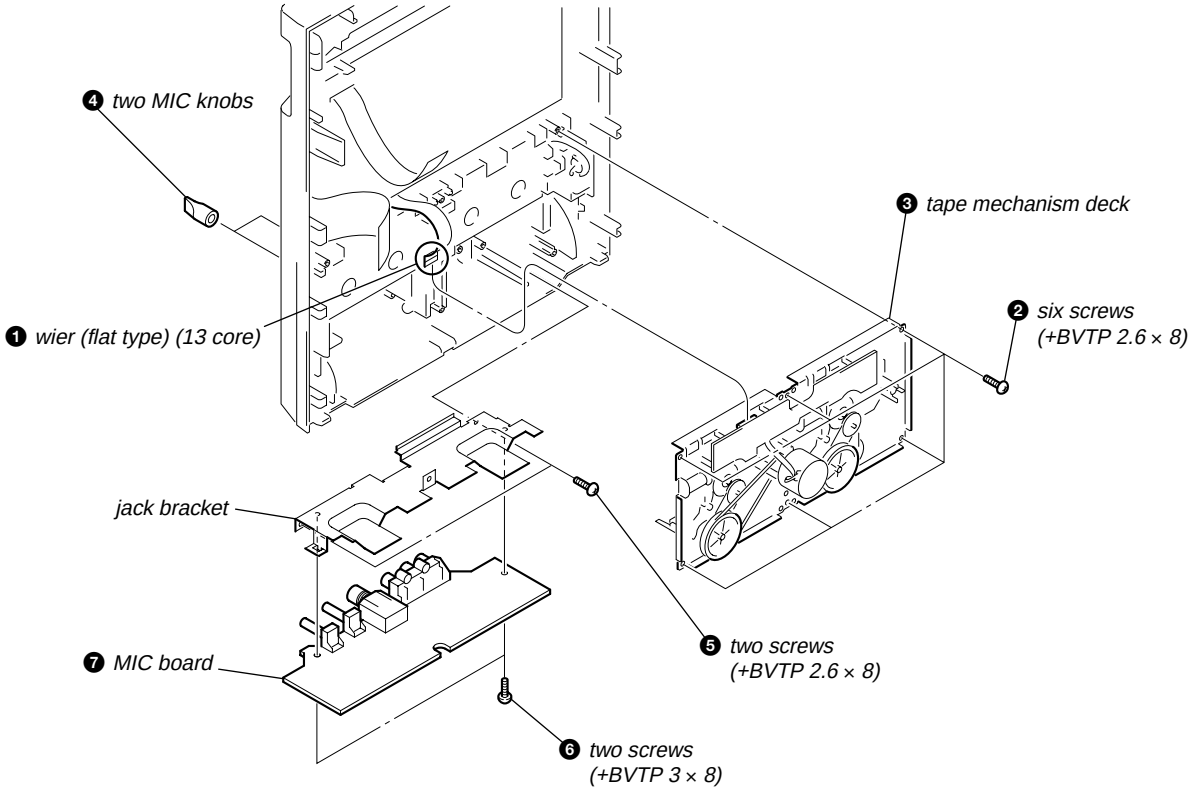
3-3. FRONT PANEL SECTION


⓮ screw (+BV (3 –CR))
❹ screw (+BVTP 3 × 8)
⓫ CN304 (8P)
⓯ CN301 (3P)
❶ CN805 (2P)
❸ wier (flat type) (11 core) (CN882)
❽ screw (+BVTP 3 × 10)
❺ screw (+BVTP 3 × 8)
⓬ CN112 (3P)
❼ screw (+BVTP 3 × 10)
❾
⓭ CN103 (8P)
❿ CN309 (5P)
❷ wier (flat type) (29 core) (CN302)
⓰ front panel section
❻ three screws (+BVTP 3 × 8)

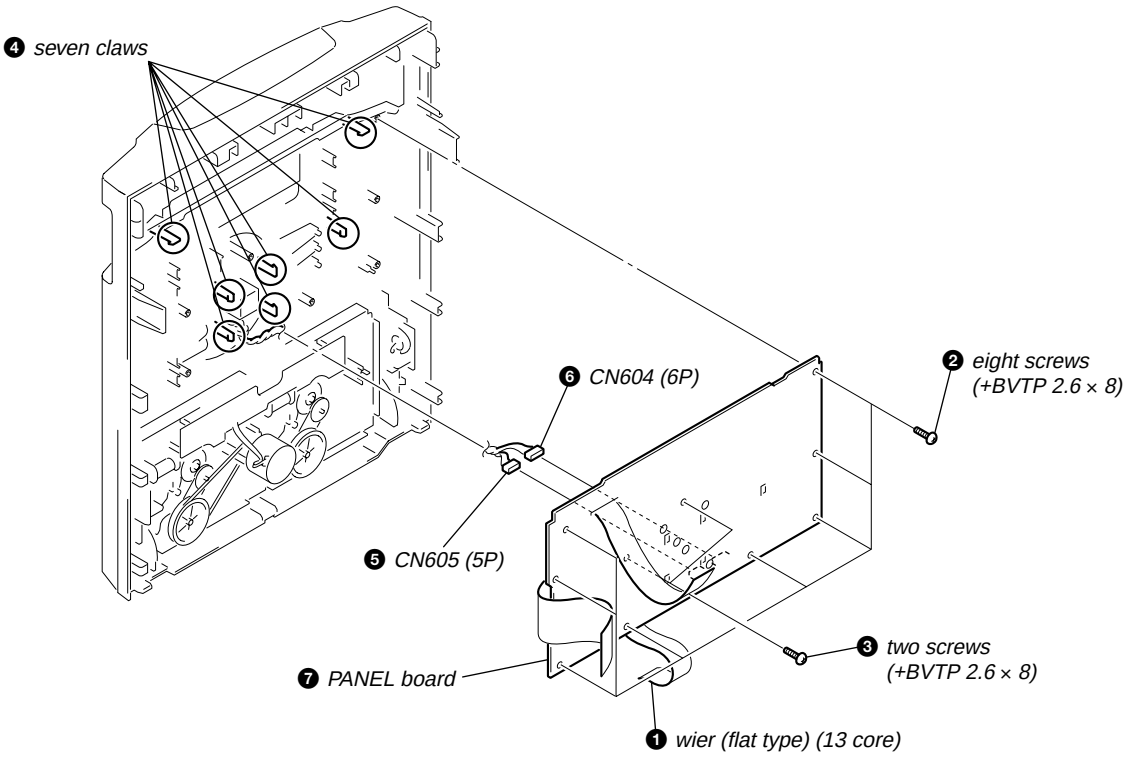
3-4. CD MECHANISM DECK



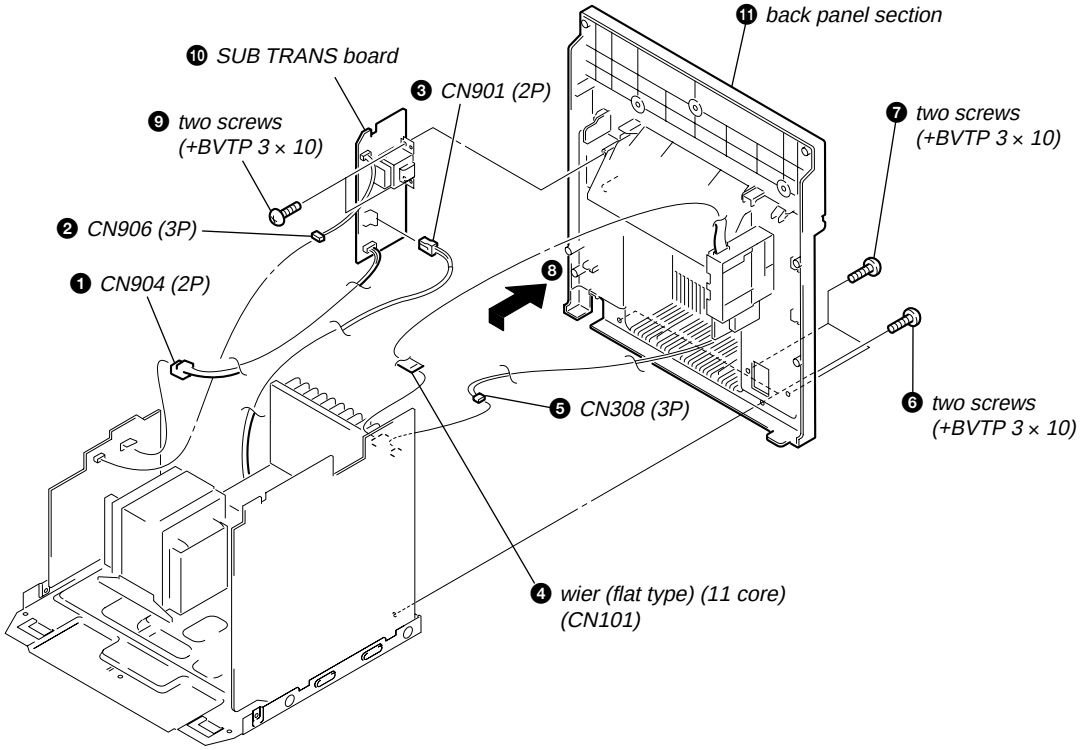
3-5. TAPE MECHANISM DECK, MIC BOARD



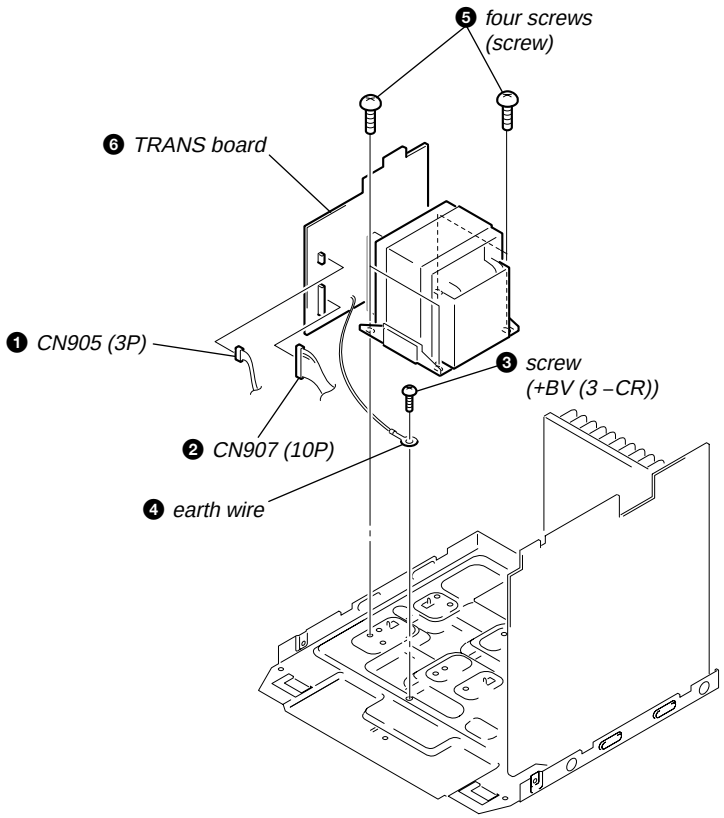
3-6. PANEL BOARD



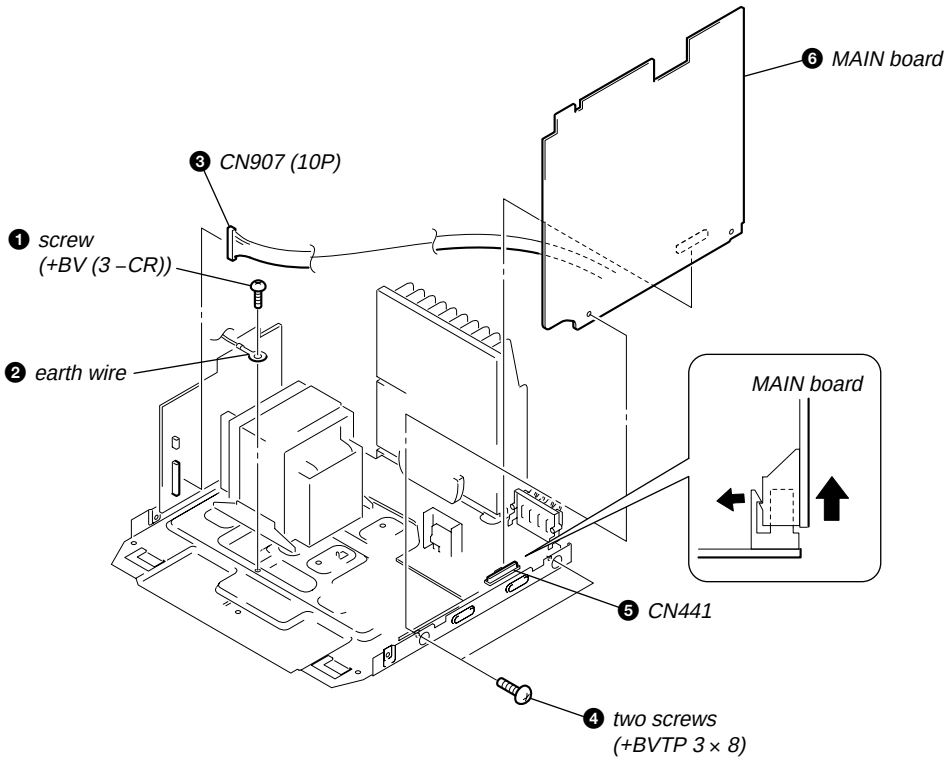
3-7. BACK PANEL SECTION, SUB TRANS BOARD


⓫ back panel section
⓾ SUB TRANS board
❸ CN901 (2P)
❾ two screws (+BVTP 3 × 10)
❼ two screws (+BVTP 3 × 10)
❷ CN906 (3P)
❶ CN904 (2P)
❽
❺ CN308 (3P)
❻ two screws (+BVTP 3 × 10)
❹ wier (flat type) (11 core) (CN101)

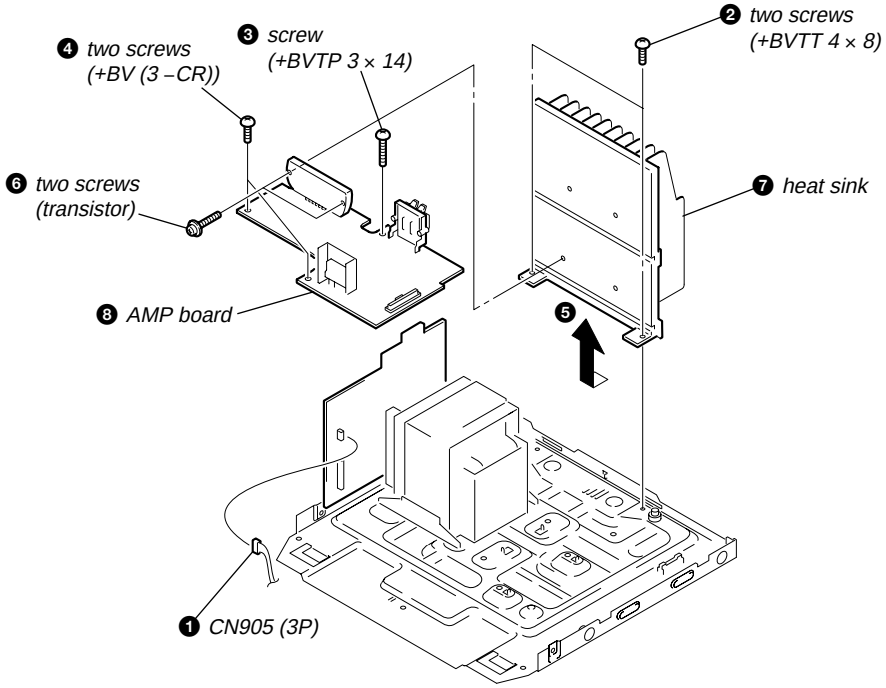
3-8. TRANS BOARD



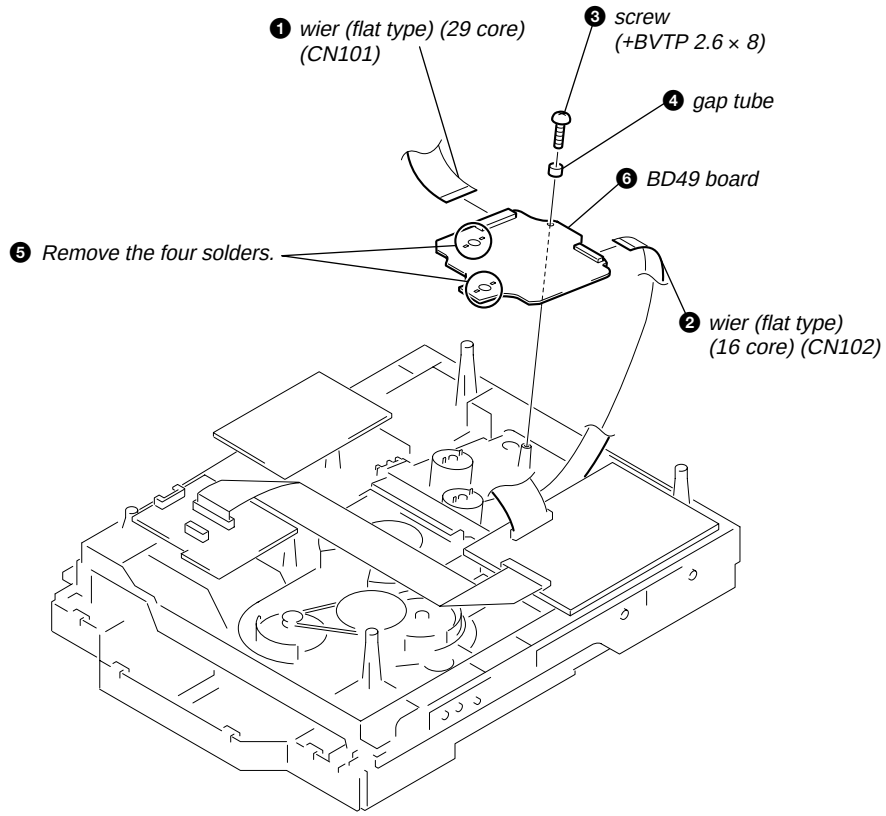
3-9. MAIN BOARD



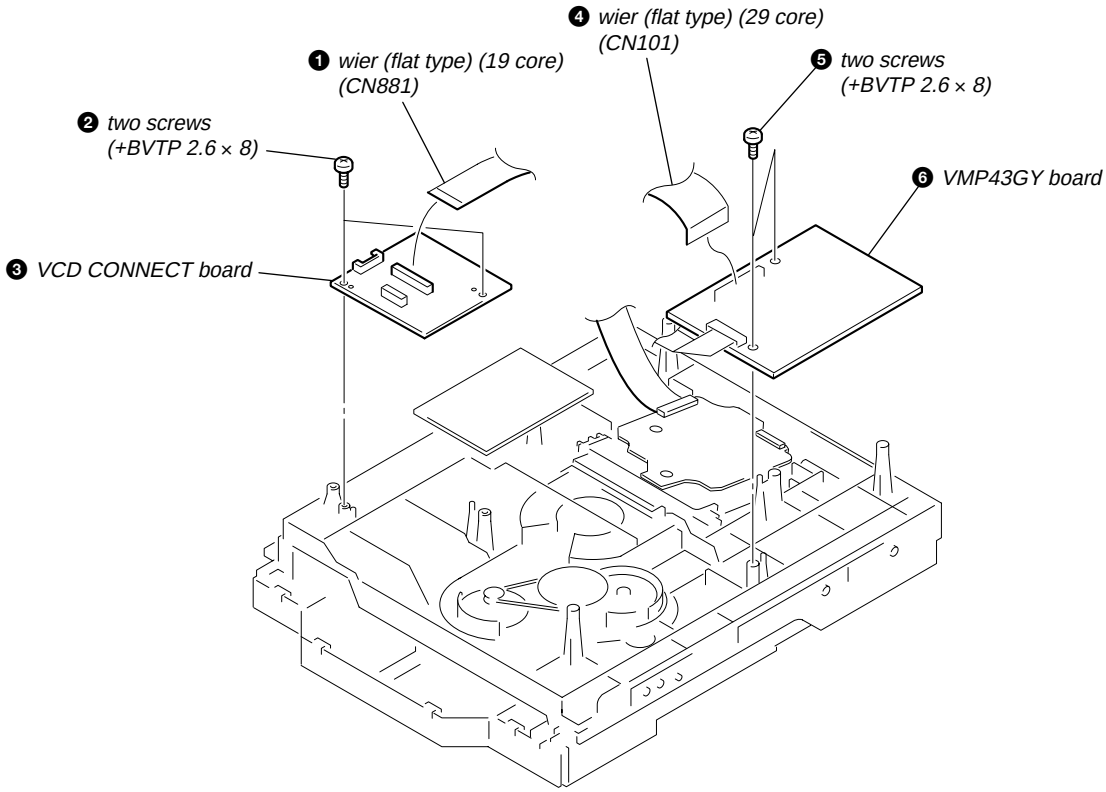
3-10. AMP BOARD



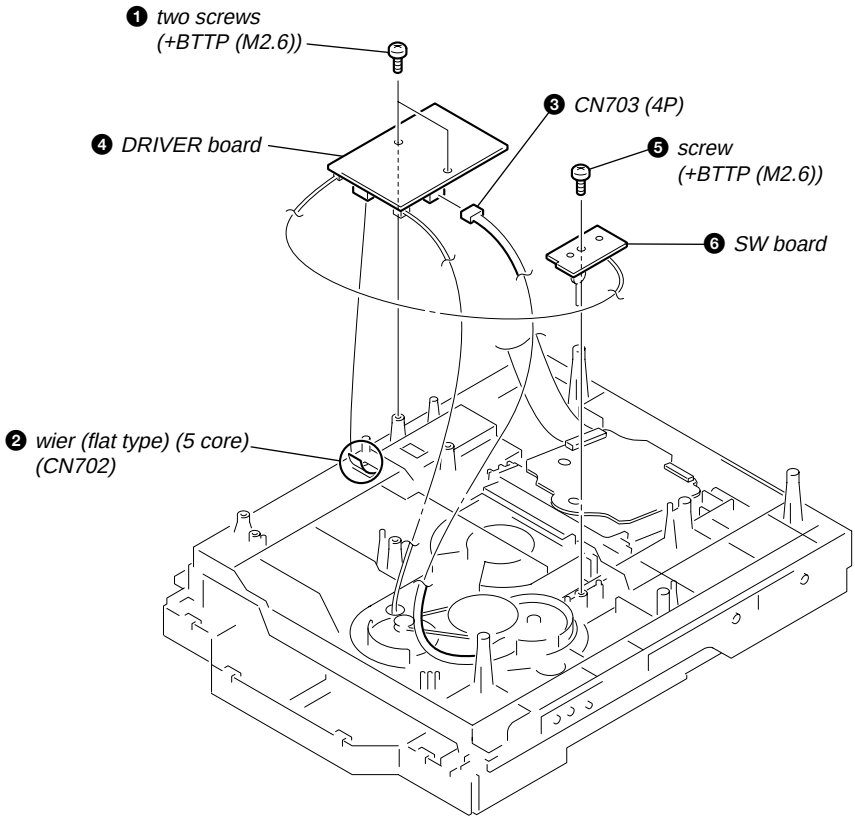
3-11. BD49 BOARD


❶ wier (flat type) (29 core) (CN101)
❸ screw (+BVTP 2.6 × 8)
❹ gap tube
❻ BD49 board
❺ Remove the four solders.
❷ wier (flat type) (16 core) (CN102)

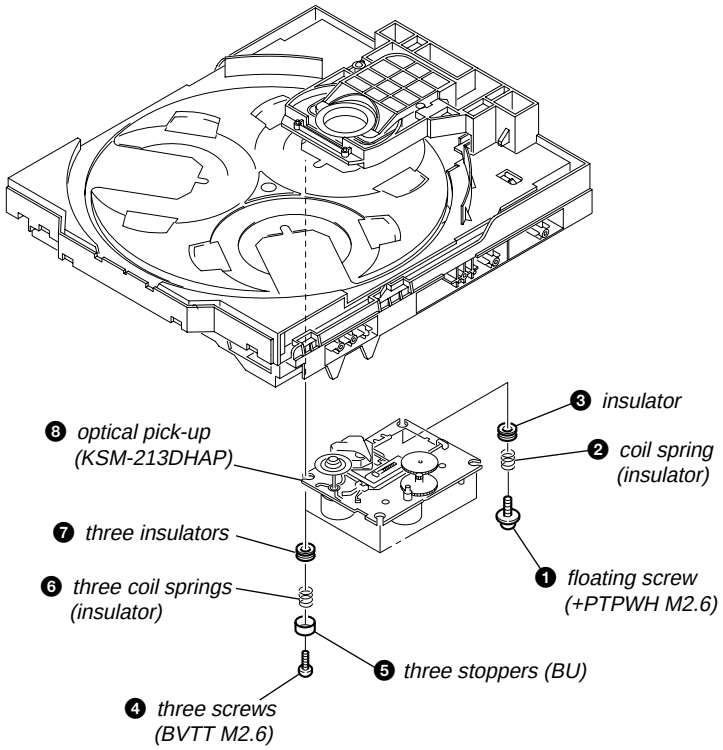
3-12. VCD CONNECT BOARD, VMP43GY BOARD


❹ wier (flat type) (29 core) (CN101)
❶ wier (flat type) (19 core) (CN881)
❺ two screws (+BVTP 2.6 × 8)
❷ two screws (+BVTP 2.6 × 8)
❻ VMP43GY board
❸ VCD CONNECT board

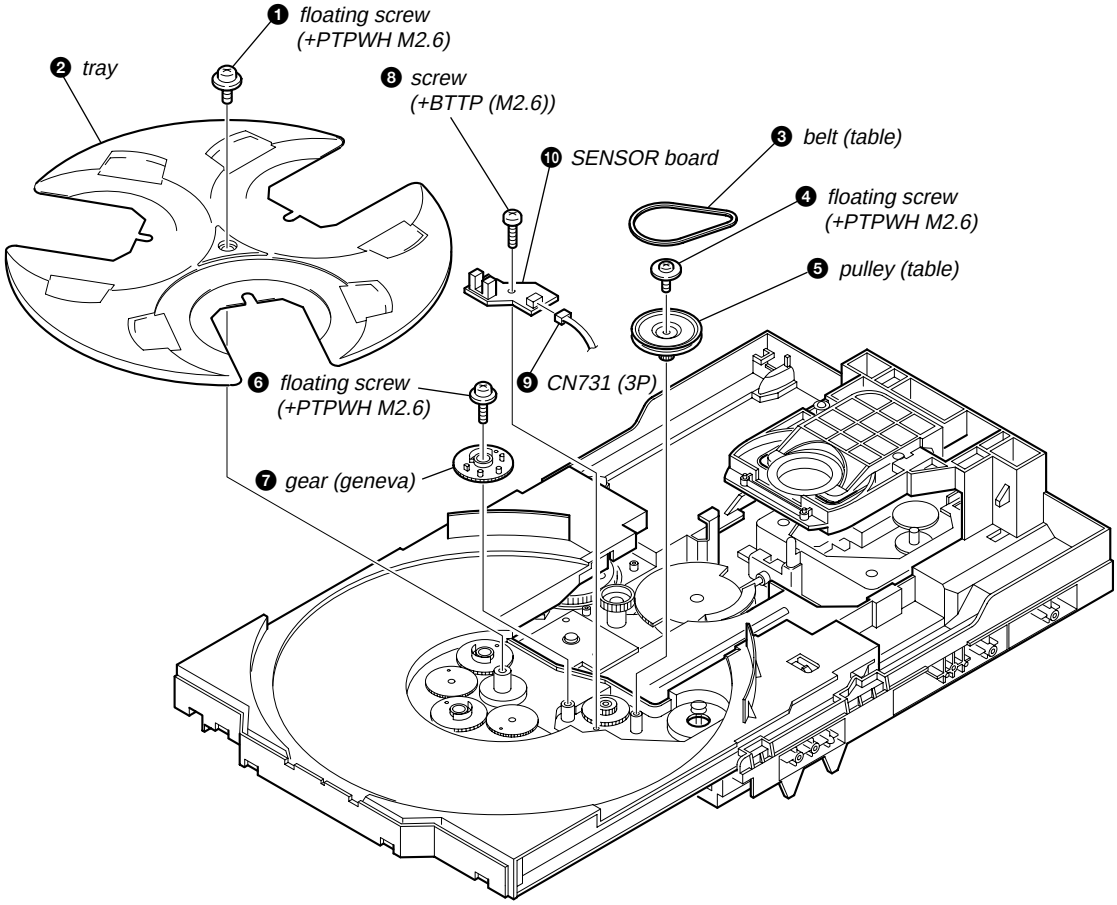
3-13. DRIVER BOARD, SW BOARD



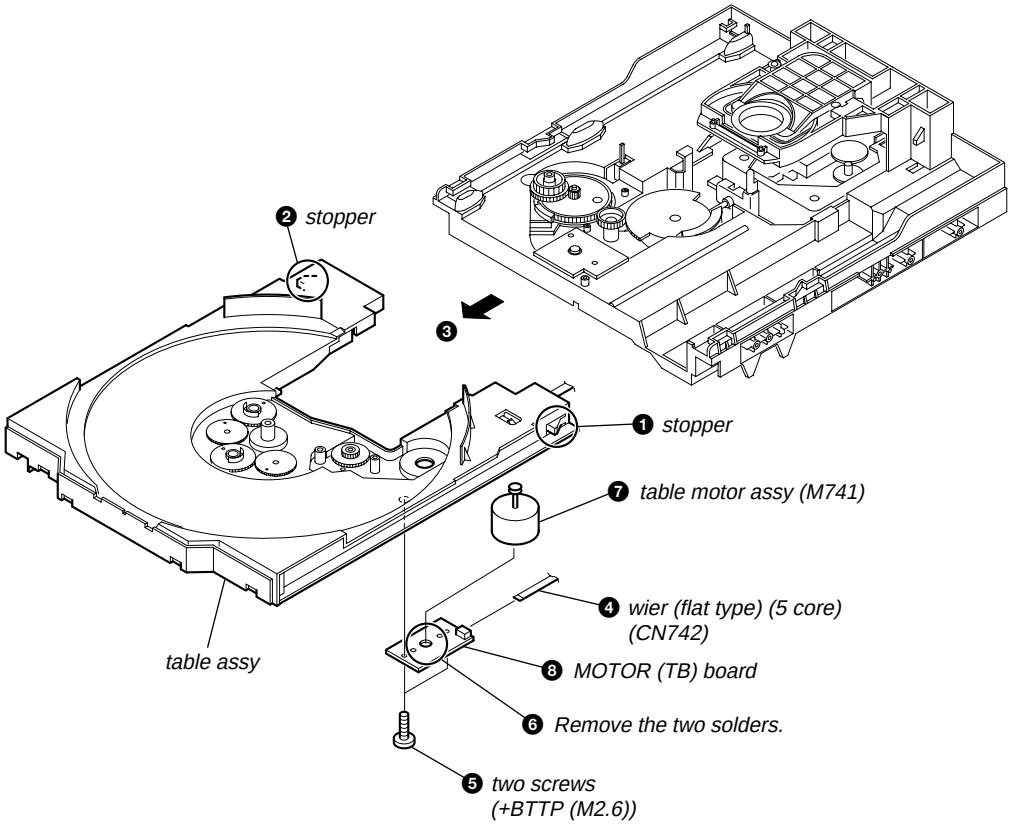
3-14. OPTICAL PICK-UP



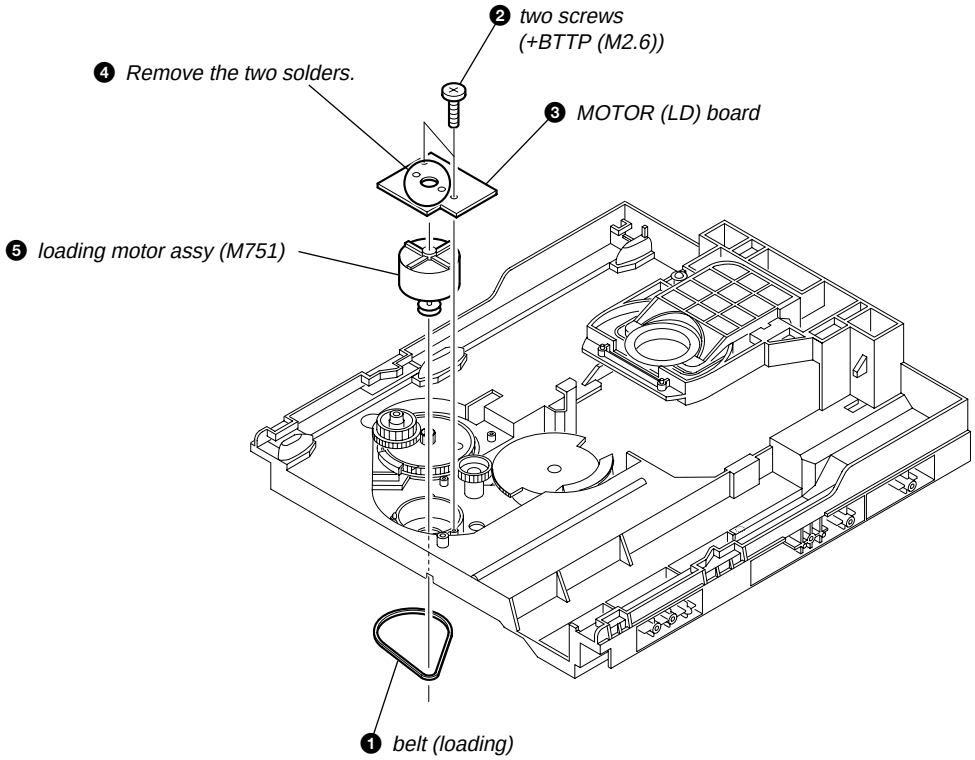
3-15. SENSOR BOARD



3-16. MOTOR (TB) BOARD



3-17. MOTOR (LD) BOARD



SECTION 4
TEST MODE

MC COLD RESET

The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press the I/⏻ button to turn the power ON.
2. Press three buttons of ■ , PLAY MODE/TUNING MODE and DISC 1 simultane-ously.
3. The message "COLD RESET" is displayed on the fluorescent indicator tube momentarily, then becomes standby states.

AM TUNING INTERVAL CHANGE-OVER

A step of AM tuning interval can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the TUNER/BAND button to select "AM".
3. Press the I/⏻ button to turn the power off.
4. Press two buttons of PLAY MODE/TUNING MODE and I/⏻ simultaneously.
5. The message "AM 9K STEP" or "AM 10K STEP" is displayed on the fluorescent indicator tube, and thus the channel step is changed over.

CD SHIP (LOCK) MODE

This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the CD button to select "CD".
3. Press two buttons of CD and I/⏻ simultaneously.
4. The message "LOCK" is displayed on the fluorescent indicator tube, and the CD ship mode is set.

CD SHIP (LOCK) MODE & COLD RESET

This mode is used to perform CD chip (lock) mode and cold reset simultaneously.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the CD button to select "CD".
3. Press three buttons of ■ , CD and I/⏻ simultaneously.
4. The message "COLD RESET" is displayed on the fluorescent indicator tube momentarily, then becomes standby states.

CHANGE-OVER FUNCTION OF SAT/VIDEO

This mode is used to enable function of external input to change over between SAT and VIDEO.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press two buttons of VIDEO/SAT and I/⏻ simultaneously.
3. The message "SAT" or "VIDEO"is displayed on the fluorescent indicator tube, and the function of external input is changed over.

CD TRAY LOCK MODE

This mode is used to unable to take sample disc out of tray in the shop.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the CD button to select "CD".
3. Set disc on the CD tray, press two buttons of ■ and ⏏ for 5 seconds.
4. The message "LOCKED" is displayed on the fluorescent indicator tube and the CD tray is locked. (Even if pressing the ⏏ button, the message "LOCKED" is displayed on the fluorescent indicator tube and the CD tray is locked)
5. To release from this mode, press two buttons of ■ and ⏏ for 5 seconds.
6. The message "UNLOCKED" is displayed on the fluorescent indicator tube and the CD tray is unlocked.

AMP TEST MODE

This mode is used to display the parameter of amplifier IC and display the VACS status.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press three buttons of ■ , PRESET EQ and PLAY MODE/ TUNING MODE simultaneously.
3. When the AMP test mode is activated, the message "AMP TEST IN" is displayed on the fluorescent indicator tube momentarily, then amplifier adjustment mode is displayed on the fluorescent indicator tube.
4. Press the DISPLAY button to changed over between VACS status display mode and the amplifier IC parameter display mode.
5. In the amplifier IC parameter display mode, press the GROOVE button to changed over DBFB on/off, and when it is on, the character "D" is displayed on the fluorescent indicator tube.
6. In the amplifier IC parameter display mode, press the SURROUND button to changed over surround on/off, and when it is on, the character "S" is displayed on the fluorescent indicator tube.
7. In the amplifier IC parameter display mode, turn each knob of I◀◀ – EQ + ▶▶I causes respective parameters to be changed, as well as change-over of the display on the fluorescent indicator tube.

CD SERVICE MODE

This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the optical pick-up.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the CD button to select "CD".
3. Press three buttons of ■ , PLAY MODE/TUNING MODE and ⏏ simultaneously.
4. When the CD service mode is activated, the message "MPEG AV TEST" is displayed on the fluorescent indicator tube.
5. Press the ▶▶ button, optical pick-up move to outside track and the message "SLED OUT" is displayed on the fluorescent indicator tube.
6. Press the ◀◀ button, optical pick-up move to inside track and the message "SLED IN" is displayed on the fluorescent indicator tube.
7. Press the ENTER button, traverse on/off is changed over.
8. Press the EQ BAND button when MPEG AV Test mode is activated, the massage "SERVICE MODE" is displayed on the fluorescent indicator tube and AV Test mode is activated.

AGING MODE

This mode can be used for operation check of CD section and tape deck section.
CD section and tape deck section work in parallel.

If an error occurred:

The aging operation stops only an error occurred sections and display then status.

If no error occurs:

The aging operation continues repeatedly.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the CD button to select "CD".
3. Set disc on the CD tray and set tape into the deck.
4. Press three buttons of ■ , PLAY MODE/TUNING MODE and DISC SKIP/EX-CHANGE simultaneously.
5. Aging operations of CD and tape are started at the same time.
6. To release from this mode, press the I/⏻ button to turn the power off and press the function buttons.

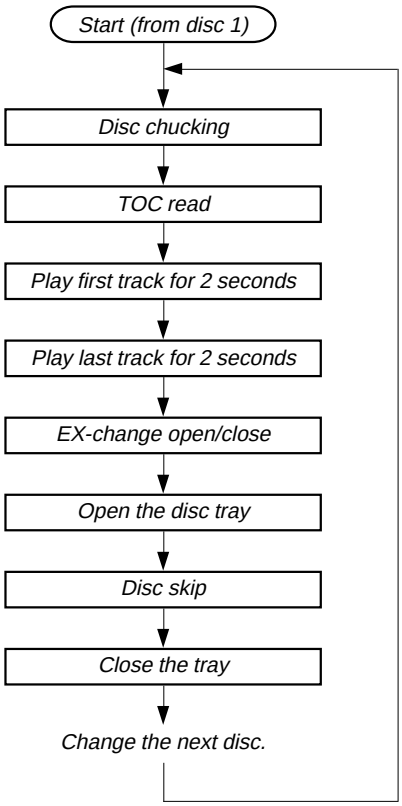
1. Display at the Aging Mode

Display operating state of CD section and tape deck section alternately.
If an error occurred, stop display which that section.

2. CD Section

The sequence during the aging mode is following as below.
Display at the aging mode is the same as the normal operation.

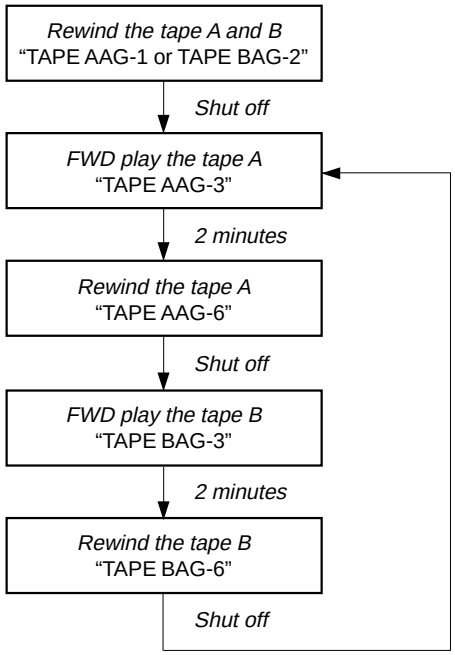
Aging mode sequence (CD section) :



3. Tape Deck Section

The sequence during the aging mode is following as below.
If an error occurred, stop display that step.

Aging mode sequence (tape deck section) :



Note: "TAPE *AG-*" is display of each step.

PANEL TEST MODE

This mode is used to check the fluorescent indicator tube, LEDs and buttons.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press three buttons of ■ , PLAY MODE/TUNING MODE and ENTER simultane-ously.
3. Fluorescent indicator tube and LEDs are all turned on.
4. Press two buttons of ❚❚ and ENTER simultaneously, mode is changed over.
5. In the key check mode, press each key, the defined key number of every each key list is displayed on the fluorescent indicator tube.
6. In the key count check mode, "KEYCNT 0" is displayed on the fluorescent indicator tube. Each time a key is pressed, "K" value increases. However, once a key is pressed, it is no longer taken into account.
7. In the headphone input check mode, connect the headphone, the message "H_P ON" is displayed on the fluorescent indicator tube, and disconnect the headphone, the message "H_P OFF" is displayed on the fluorescent indicator tube.
8. In the volume check mode, "VOLUME FLAT" is displayed on the fluorescent indicator tube. Turn the VOLUME knob clockwise, the message "VOLUME UP" is displayed on the fluorescent indicator tube momentarily and turn the VOLUME knob counterclockwise, the message "VOLUME DOWN" is displayed on the fluorescent indicator tube momentarily.

MC TEST MODE

This mode is used to check operations of microprocessor.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press three buttons of ■ , PLAY MODE/TUNING MODE and DISC 3 simultane-ously.
3. When the MC test mode is activated, VACS level is displayed on the fluorescent indicator tube momentarily.
4. Turn the I◀◀ – EQ + ▶▶I knob clockwise, the message "ALL EQ MAX" is displayed on the fluorescent indicator tube momentarily and turn the I◀◀ – EQ + ▶▶I knob counterclock-wise, the message "ALL EQ MIN" is displayed on the fluorescent indicator tube momentarily.
5. Press the PRESET EQ button, the message "ALL EQ FLAT" is displayed on the fluorescent indicator tube momentarily.
6. Turn the VOLUME knob clockwise, the message "VOLUME MAX" is displayed on the fluorescent indicator tube momentarily and turn the VOLUME knob counterclockwise, the message "VOLUME MIN" is displayed on the fluorescent indicator tube momentarily.
7. Press the GROOVE button to changed over VACS on/off.
8. When the REC PAUSE/START button is pressed twice with a tape set in the deck-B, the function is switched "MD" or "VIDEO" and recording starts. When the ◀◀ or ▶▶ button is pressed during recording, the tape is rewound back to the beginning of recording, the function is switched to "TAPE B", then playback starts.
9. When the CD SYNC key is pressed with the test tape (AMS-100, AMS-110A) in the deck, number of space between tunes is counted, then if AMS-110A is set, "OK" is displayed on the fluorescent indicator tube and if AMS-100 is set, "NG" is displayed on the fluorescent indicator tube.
10. Press the I/⏻ button to release from this mode, then cold reset is performed.

VERSION DISPLAY MODE

This mode is used to check the model, destination and software version.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press three buttons of ■ , PLAY MODE/TUNING MODE and DISC 2 simultane-ously.
3. When this mode is activated, model and destination is displayed on the fluorescent indicator tube.
4. Press the DISPLAY button to changed over between software version and year, month, day of the software creation display mode and model and destination display mode.
5. To release from this mode, press three buttons of ■ , PLAY MODE/TUNING MODE and DISC 2 simultaneously.

CD ERROR CODE DISPLAY MODE

This mode can be used for error code display of CD section.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the CD key to select "CD".
3. Press three buttons of ■ , CD and DISC 1 simultaneously.
4. When this mode is activated, mechanism deck error code is displayed on the fluorescent indicator tube.
5. Press the GROOVE button to changed over between optical pick-up error code display mode and mechanism deck error code mode.
6. Turn the I◀◀ – EQ + ▶▶I knob to change over display of error history.

1. Mechanism Deck Error Code Mode

When this mode is entered, mechanism deck error code is displayed with the 10-character format on the fluorescent indicator tube.

The first digit from the left indicates:

The first digit from the left indicates which mode the error history is. In the mechanism deck error code mode, "M" is displayed on the fluorescent indicator tube.

The second digit from the left indicates:

(Error history No. display)

The second digit from the left indicates which order the error history is. "1" indicates the latest error history, and each time the number increases by one, the error history goes back to one-previous error.

The third and 4th digit from the left indicates:
(Error status display)

The third and 4th digit from the left indicates which error status is indicated.

Display	Status
0 0	No error
0 8	Table operation time-out (Table does not move to the target position within the specified time)
1 6	In the chucking down operation, the operation was retried by the maximum number of times but the operation could not be completed
1 7	In the chucking up and down operation, the reverse recovery processing was attempted but it could not be recovered
1 8	In the chucking up operation, the operation was retried by the maximum number of times but the operation could not be completed
2 0	Loading operation time-out (Table does not move to the target position within the specified time)
2 2	As the chuck was in the ex-open status at the initialization, the closing was attempted but could not be completed

The 5th and 6th digit from the left indicates:
(Present status display)

The 5th and 6th digit from the left indicates which operating status when an error occurred is indicated.

Display	Status
0 1	Open completion status
0 2	From open status, the movement to chucking down position is under way
0 3	From chucking down position, the open operation is under way
0 4	Chucking down completion status
1 0	The chucking down operation is under way
1 1	The chucking up operation is under way
1 2	Close completion status
1 3	From close status, the ex-open operation is under way
1 4	From ex-open status, the close operation is under way
1 8	Ex-pen completion status

The 7th and 8th digit from the left indicates:
(Motor status display)
The 7th and 8th digit from the left indicates which motor output status when an error occurred is indicated.

Display	Status
× 0	No table motor output
× 1	Table motor forward output
× 2	Table motor backward output
× 3	Table motor break output
0 ×	No loading motor output
1 ×	Loading motor forward output
2 ×	Loading motor backward output
3 ×	Loading motor break output

The 9th and 10 th digit from the left indicates:
(Tray status display)
The 9th and 10th digit from the left indicates which target processing when an error occurred is indicated.

Display	Status
0 1	Open operation
1 2	Close operation
1 8	Ex-open operation

2. Optical Pick-up Error Code Mode

When this mode is entered, optical pick-up error code is displayed with the 8-character format on the fluorescent indicator tube.

The first digit from the left indicates:
The first digit from the left indicates which mode the error history is. In the optical pick-up error code mode, “D” is displayed on the fluorescent indicator tube.

The second digit from the left indicates:
(Error history No. display)
The second digit from the left indicates which order the error history is. “1” indicates the latest error history, and each time the number increases by one, the error history goes back to one-previous error.

The third and 4th digit from the left indicates:
(Error status display)
The third and 4th digit from the left indicates which error status is indicated.

Display	Status
0 1	Not focused (TOC read without a disc)
0 2	GFS NG (TOC read with a disc chucked)
0 3	Start operation time-over
0 4	Defocused continuously (Defocused during TOC reading)
0 5	Q code not entered for specified time
0 6	Tracking not turned ON
0 7	Blank disc (Blank disc TOC read)

The 5th and 6th digit from the left indicates:
(Error step display)
The 5th and 6th digit from the left indicates which processing when a trouble occurred

Display	Contents
0 1	Power OFF in progress
0 2	Initialize in progress
0 3	Oscillation stopping
0 4	From oscillation stop, oscillation starting
0 5	Stopping
0 6	Stop operation is under way
0 7	Start operation in progress
0 8	TOC read in progress
0 9	Search operation is under way
0 A	Playback operation is under way
0 B	Pause operation is under way
0 C	Playback manual search operation is under way
0 D	Pause manual search operation is under way
0 E	—

The 7th and 8th digit from the left indicates:
The 7th and 8th digit from the left indicates which operation in progress when a trouble occurred. (Step of each processing of the 5th and 6th digits is indicated)

5 REPEAT LIMIT CANCEL MODE

Number of repeat for CD playback is 5 times when the repeat mode is “REPEAT”. This mode is used to enables CD to repeat playback for limitless times.

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [CD] button to select “CD”.
3. Press three buttons of [■] , [CD] and [ENTER] simultaneously.
4. The message “LIMIT OFF” is displayed on the fluorescent indicator tube momentarily, CD repeat 5 limit is cancelled.

VCD COLOR SYSTEM MODE

This mode is used to change over color system.

Procedure:

1. Set to the standby state.
2. Press two buttons of [◀◀] and [I/⏻] simultaneously to change the color system to PAL, and the message “COLOR PAL” is displayed on the fluorescent indicator tube.
3. Press two buttons of [II] and [I/⏻] simultaneously to change the color system to AUTO, and the message “COLOR AUTO” is displayed on the fluorescent indicator tube.
4. Press two buttons of [▶▶] and [I/⏻] simultaneously to change the color system to NTSC, and the message “COLOR NTSC” is displayed on the fluorescent indicator tube.

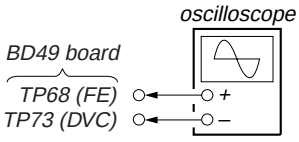
SECTION 5
ELECTRICAL ADJUSTMENTS

CD SECTION

Note:

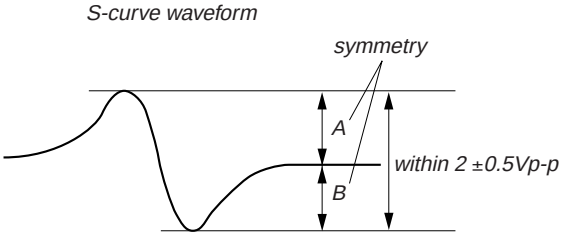
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use LUV-P01 (Part No. 4-999-032-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MW impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-CURVE CHECK



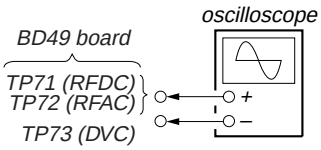
Procedure :

1. Connect an oscilloscope to TP68 (FE) and TP73 (DVC) on the BD49 board.
2. Press the I/⏻ button to turn the power on.
3. Load the disc (LUV-P01) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
4. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2 ± 0.5 Vp-p.



Note:
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

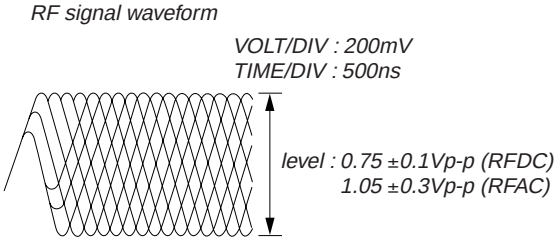
RF LEVEL CHECK



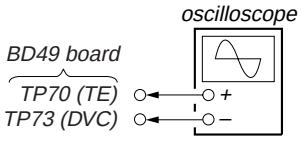
Procedure :

1. Connect an oscilloscope CH1 to TP71 (RFDC), CH2 to TP72 (RFAC) and TP73 (DVC) on the BD49 board.
2. Press the I/⏻ button to turn the power on.
3. Load the disc (LUV-P01) and playback the number nine track.
4. Confirm that oscilloscope waveform is clear and check if RF signal level is correct or not.

Note: Clear RF signal waveform means that the shape " ◊ " can be clearly distinguished at the center of the waveform.

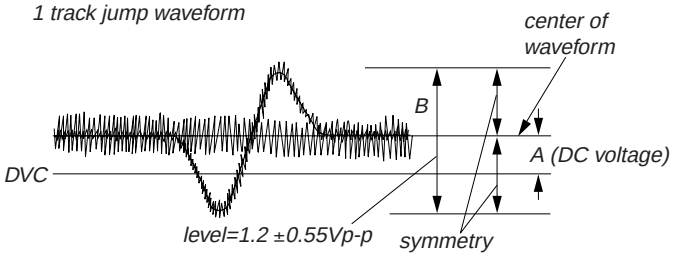


TRAVERSE LEVEL CHECK



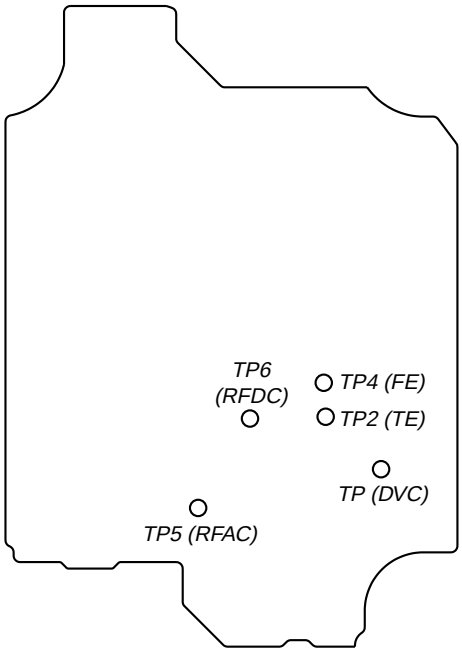
Procedure :

1. Connect an oscilloscope to TP70 (TE) and TP73 (DVC) on the BD49 board.
2. Press the I/⏻ button to turn the power on.
3. Load the disc (LUV-P01) and playback the number nine track.
4. Press the ◁I▷ button. (Becomes the 1 track jump mode.)
5. Confirm that the level B and A (DC voltage) on the oscilloscope waveform.



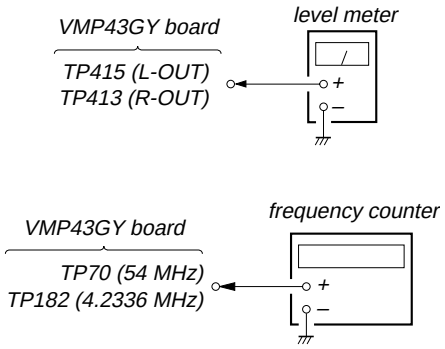
Connecting Location:

– BD49 BOARD (Conductor Side) –



VIDEO SECTION

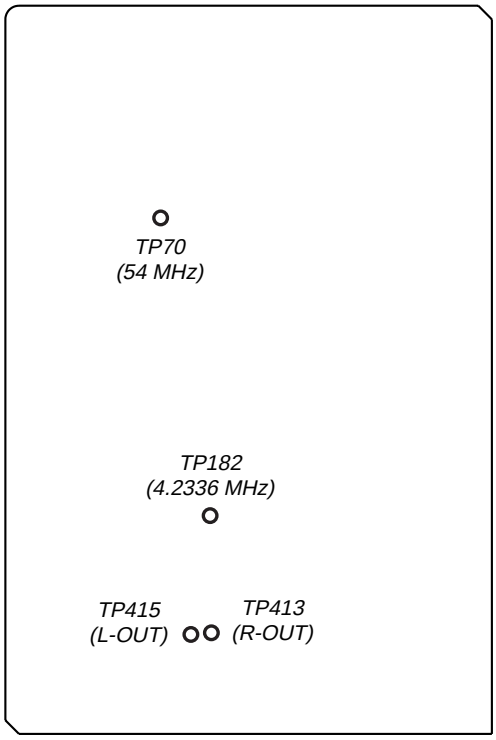
AUDIO LEVEL, VIDEO CLOCK, AUDIO SERVO CLOCK CHECK



Procedure :

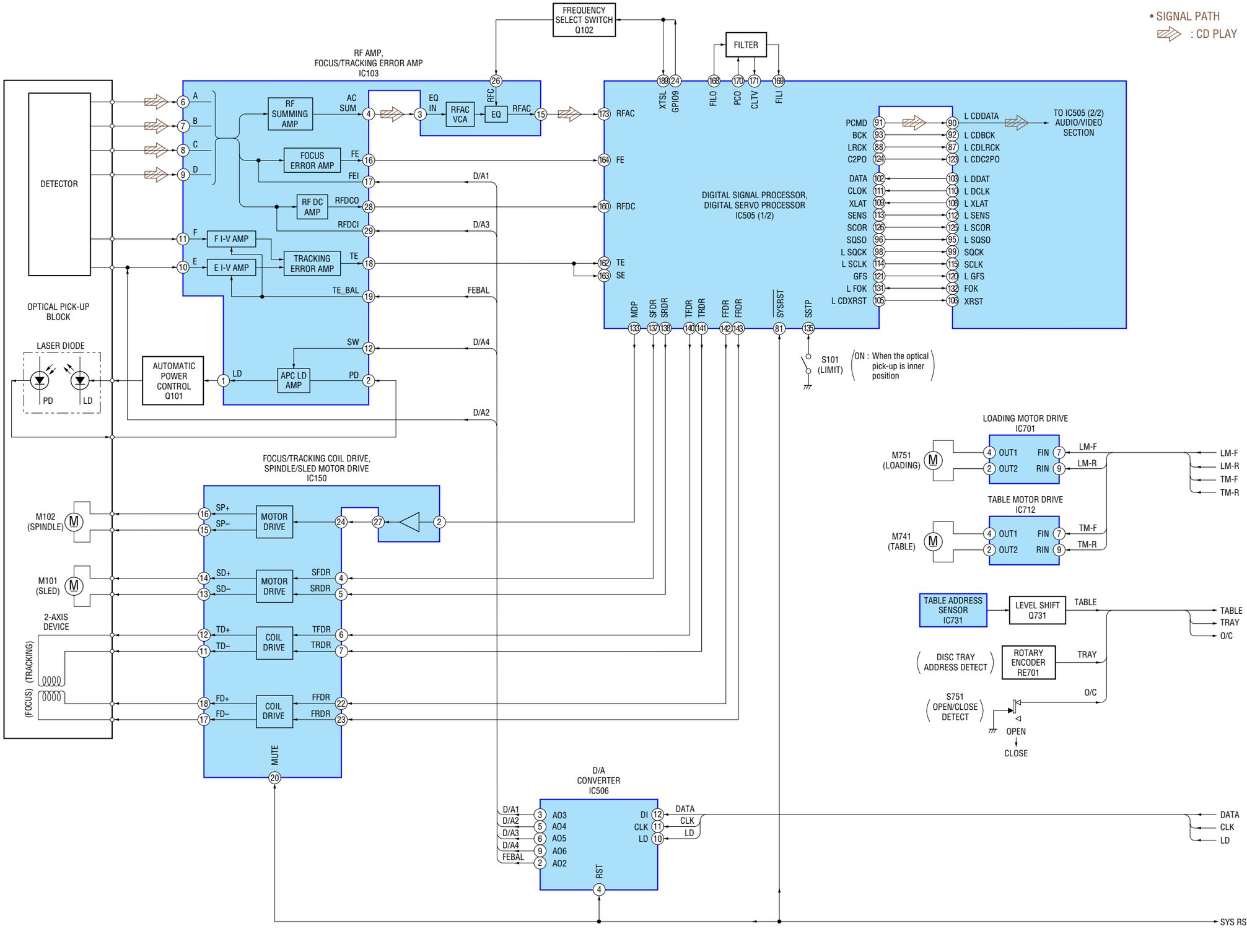
1. Connect an oscilloscope to TP308 (V-OUT) on the VMP43GY board.
2. Connect a level meter to TP415 (L-OUT) and TP413 (R-OUT) on the VMP43GY board.
3. Connect a frequency counter to TP70 (54 MHz) and TP182 (4.2336 MHz) on the VMP43GY board.
3. Press the I/⏻ button to turn the power on.
4. Set a test disc (HLV-402 (Part No. 8-909-870-00))
5. Set to the MPEG AV TEST mode. (Refer to the CD SERVICE MODE (See page 19))
6. The message “MPEG AV” is displayed on the flourescent indicator tube. Color bar signal outputs and sine-wave (1 kHz 0dB) appears.
7. Confirm that the value of level meter is 2.5 ± 2.0 dBs. (If audio output disappear, press the PRESET EQ button, and the message “SERVICE MODE” is displayed on the flourescent indicator tube)
8. Confirm that the value of frequency counter is 54 MHz ± 400 Hz.
9. Confirm that the value of frequency counter is 4,2336 MHz.
10. Change disc to a MP3 test disc (MP3 1kHz 0dB sine-wave is recorded)
11. Confirm that the value of level meter is 2.4 ± 2.0 dBs.

– VMP43GY BOARD (Component Side) –

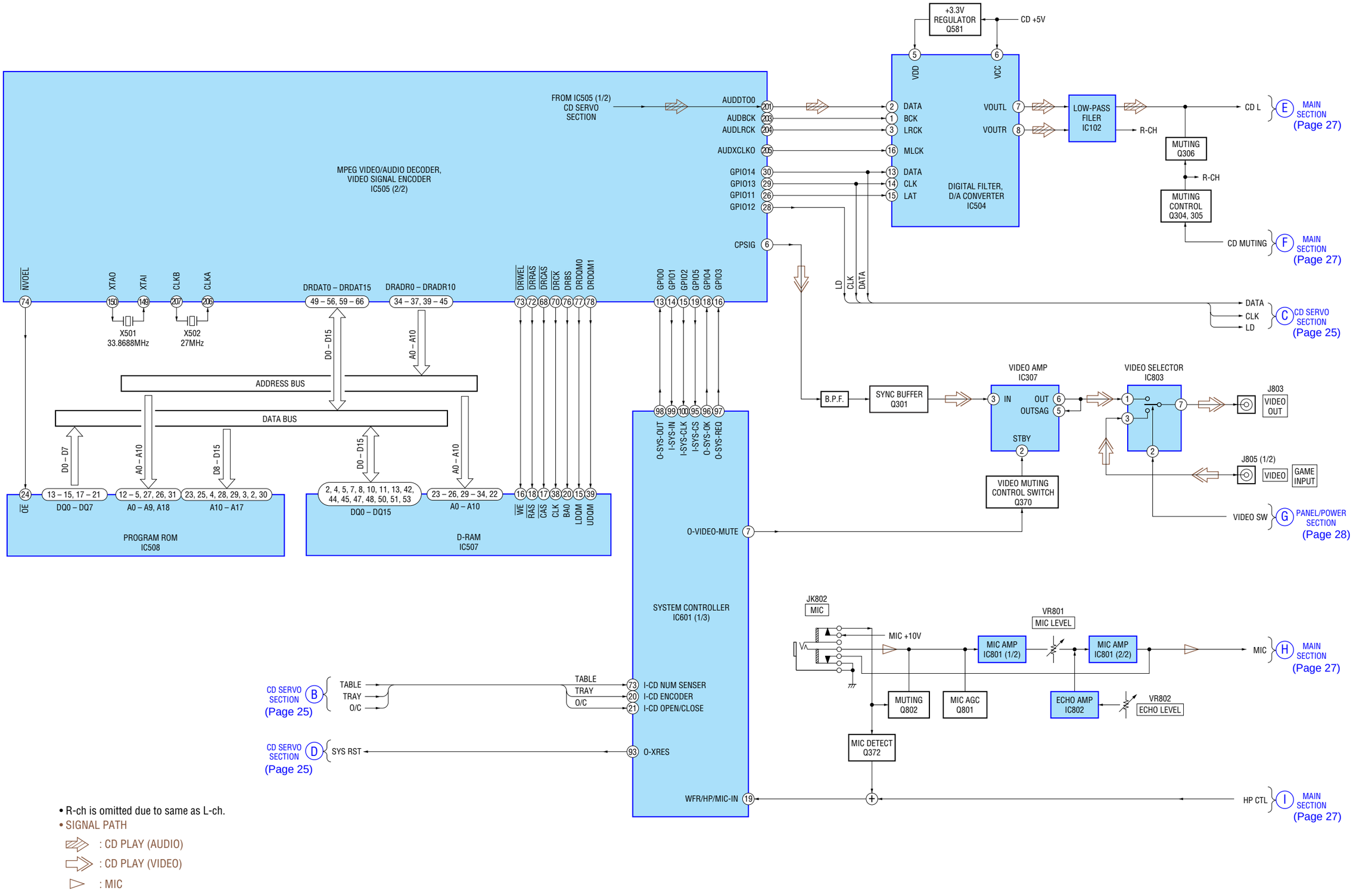


SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM — CD SERVO SECTION —



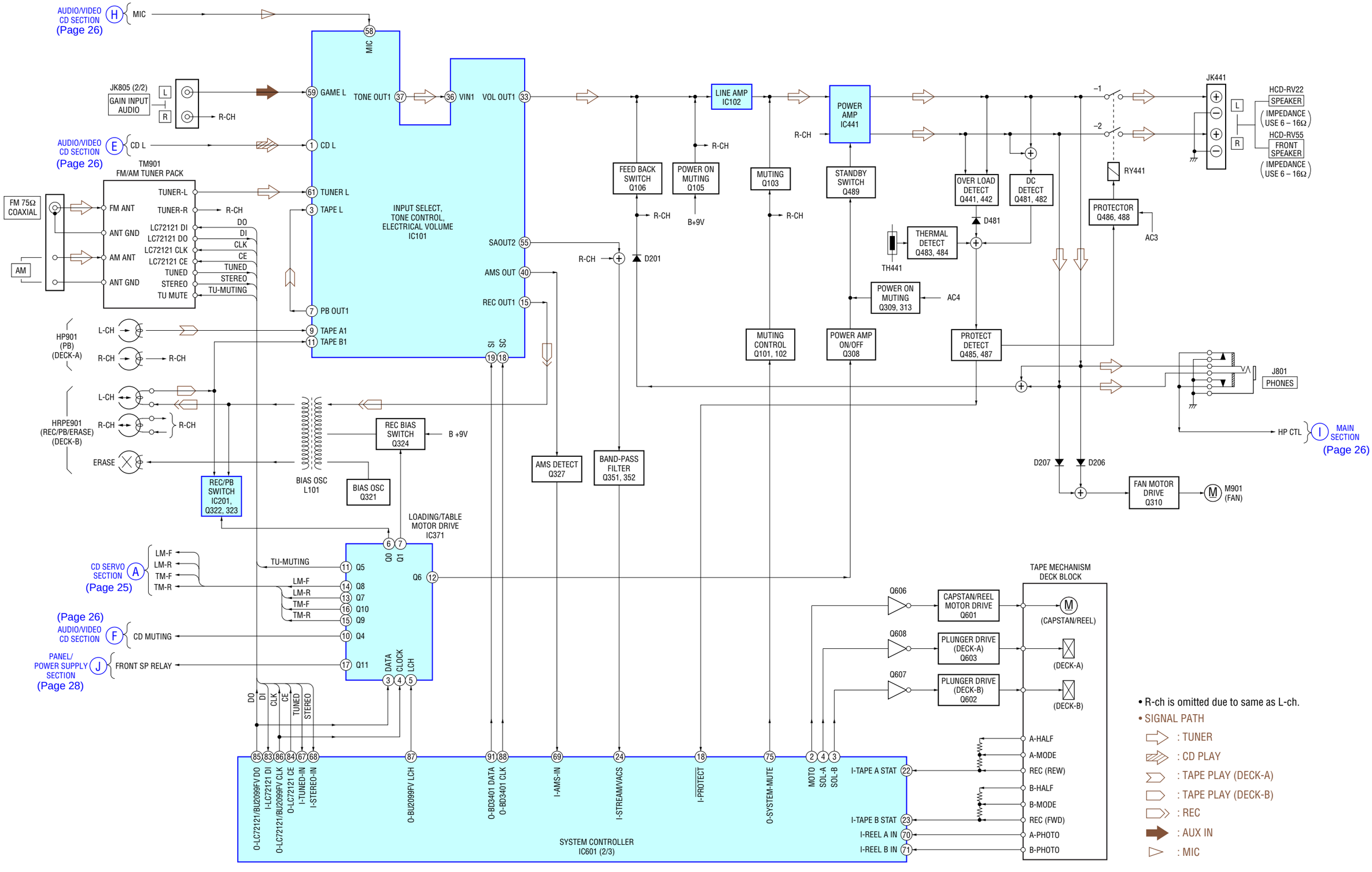
6-2. BLOCK DIAGRAM — AUDIO/VIDEO CD SECTION —



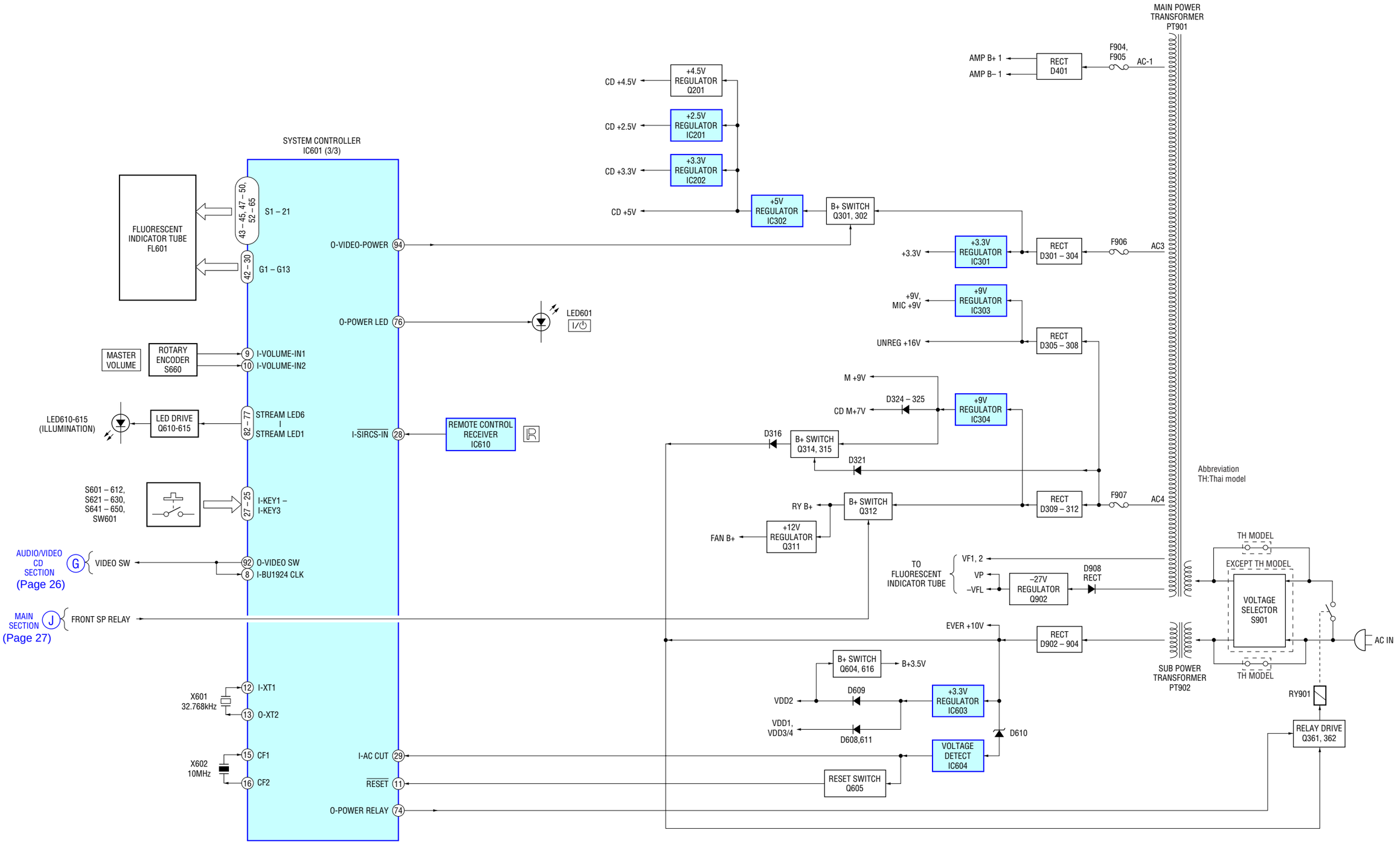
- R-ch is omitted due to same as L-ch.
- SIGNAL PATH

: CD PLAY (AUDIO)
: CD PLAY (VIDEO)
: MIC

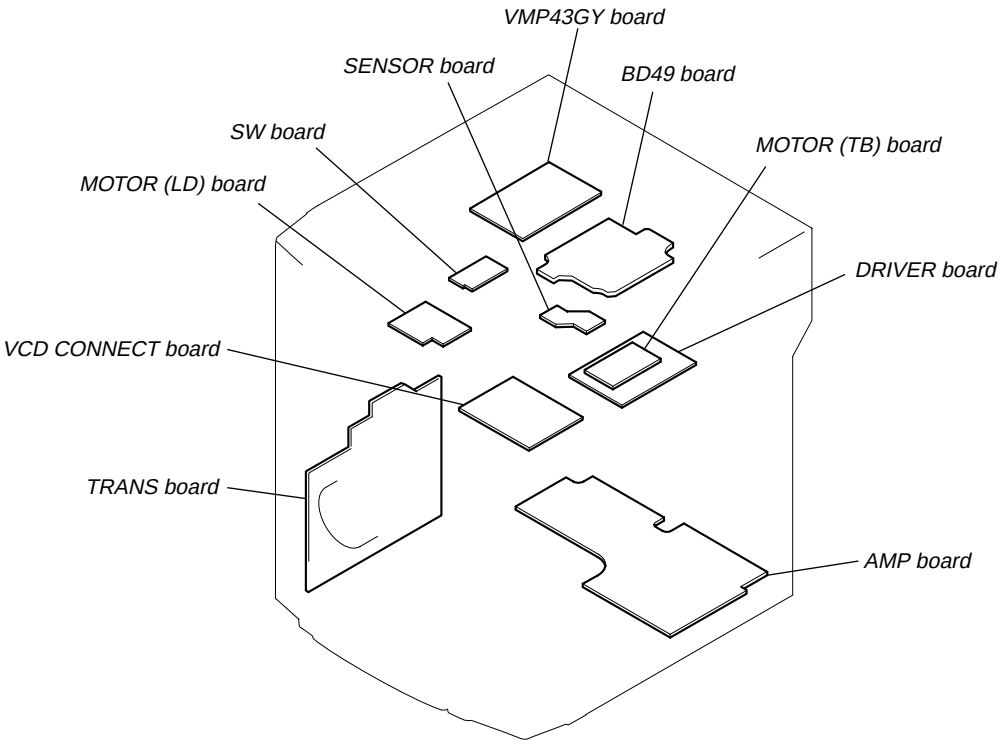
6-3. BLOCK DIAGRAM — MAIN SECTION —

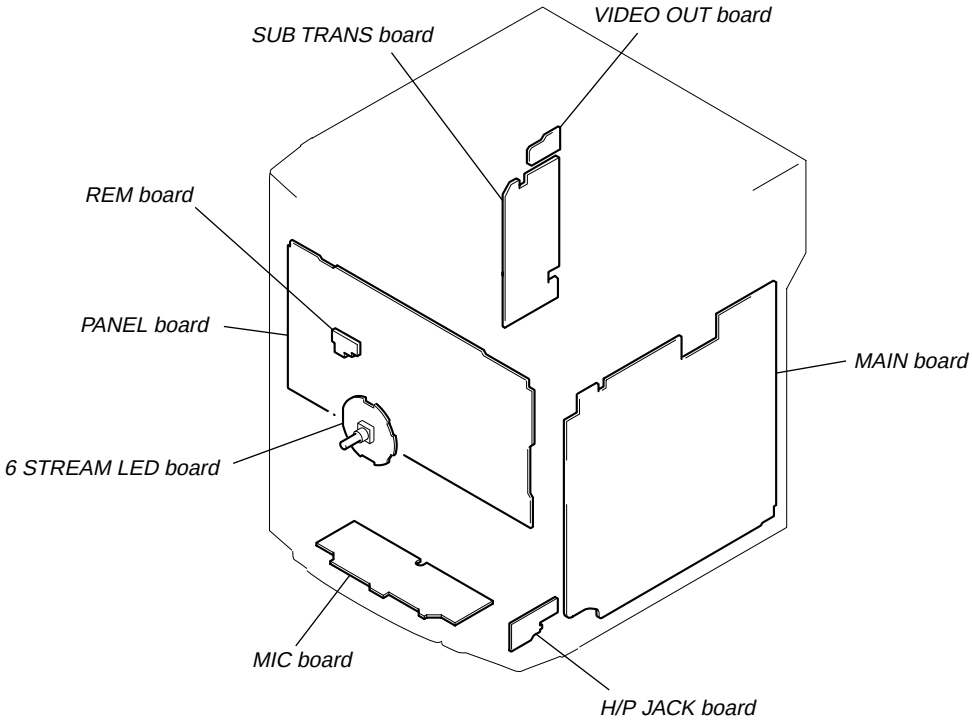


6-4. BLOCK DIAGRAM — PANEL/POWER SUPPLY SECTION —



6-5. CIRCUIT BOARDS LOCATION





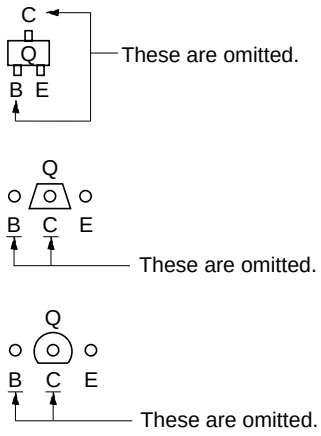
• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▬ : Pattern from the side which enables seeing.
  (The other layer's patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor.



UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- : nonflammable resistor.
- : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

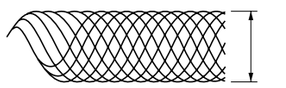
- : B+ Line.
- : B– Line.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  – BD49 Board –
  no mark : CD PLAY
  – VMP43GY Board –
  no mark : VIDEO CD PLAY
  ✻ : Impossible to measure
  – Other Sections –
  no mark : FM
  ( ) : CD PLAY
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : AUDIO
  : CD PLAY (AUDIO)
  : TAPE PLAY (DECK-A)
  : TAPE PLAY (DECK-B)
  : REC
  : AUX
  : CD PLAY (VIDEO)

- Abbreviation
  TH: Thai model

• **Waveforms**

– BD49 Board –

① IC103 ⑮ (RFAC) (CD Play Mode)



200 mV/DIV, 500 ns/DIV

② IC103 ⑯ (FE) (CD Play Mode)

100 mV/DIV, 1 µs/DIV

③ IC103 ⑱ (TE) (CD Play Mode)

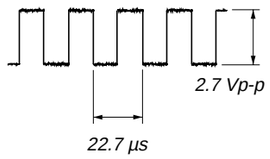
200 mV/DIV, 500 ns/DIV

– VMP43GY Board –

① IC504 ① (BCK), IC505 ⑳③ (AUDBCK)

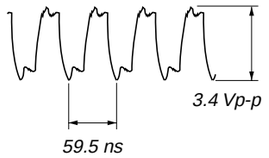
1 V/DIV, 200 ns/DIV

② IC504 ③ (LRCK), IC505 ⑳④ (AUDLRCK)



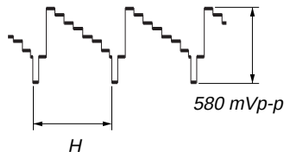
1 V/DIV, 10 µs/DIV

③ IC504 ⑯ (MCLK), IC505 ⑳⑤ (AUDXCLKO)



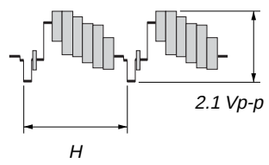
1 V/DIV, 20 ns/DIV

④ IC505 ⑥ (CPSIG) (VCD Play Mode) (Color Bar)



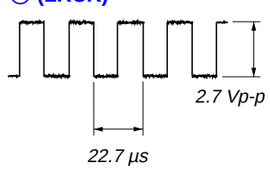
200 mV/DIV, 20 µs/DIV

⑤ IC307 ⑥ (BUFOUT) (VCD Play Mode) (Color Bar)



500 mV/DIV, 20 µs/DIV

⑥ IC505 ⑧⑦ (L CDLRCK) ⑧⑧ (LRCK)

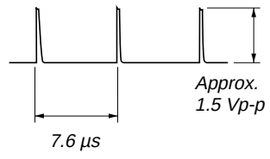


1 V/DIV, 10 µs/DIV

⑦ IC505 ⑨② (L CDBCK), ⑨③ (BCK)

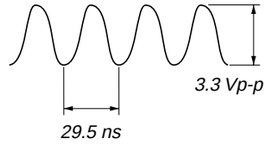
1 V/DIV, 200 ns/DIV

⑧ IC505 ⑬③ (MDP) (CD Play Mode)



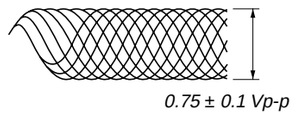
500 mV/DIV, 5 µs/DIV

⑨ IC505 ⑮⓪ (XTAO)



1 V/DIV, 20 ns/DIV

⑩ IC505 ⑯⓪ (RFDC) (CD Play Mode)



200 mV/DIV, 500 ns/DIV

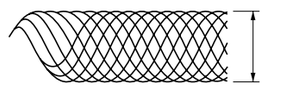
⑪ IC505 ⑯② (TE) (CD Play Mode)

200 mV/DIV, 500 ns/DIV

⑫ IC505 ⑯④ (FE) (CD Play Mode)

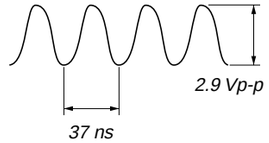
100 mV/DIV, 1 µs/DIV

⑬ IC505 ⑰③ (RFAC) (CD Play Mode)



500 mV/DIV, 500 ns/DIV

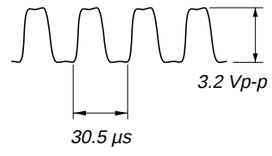
⑭ IC505 ⑳⑦ (CLKB)



1 V/DIV, 20 ns/DIV

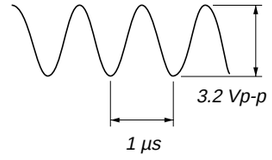
– PANEL Board –

① IC601 ⑬ (I-XT2)



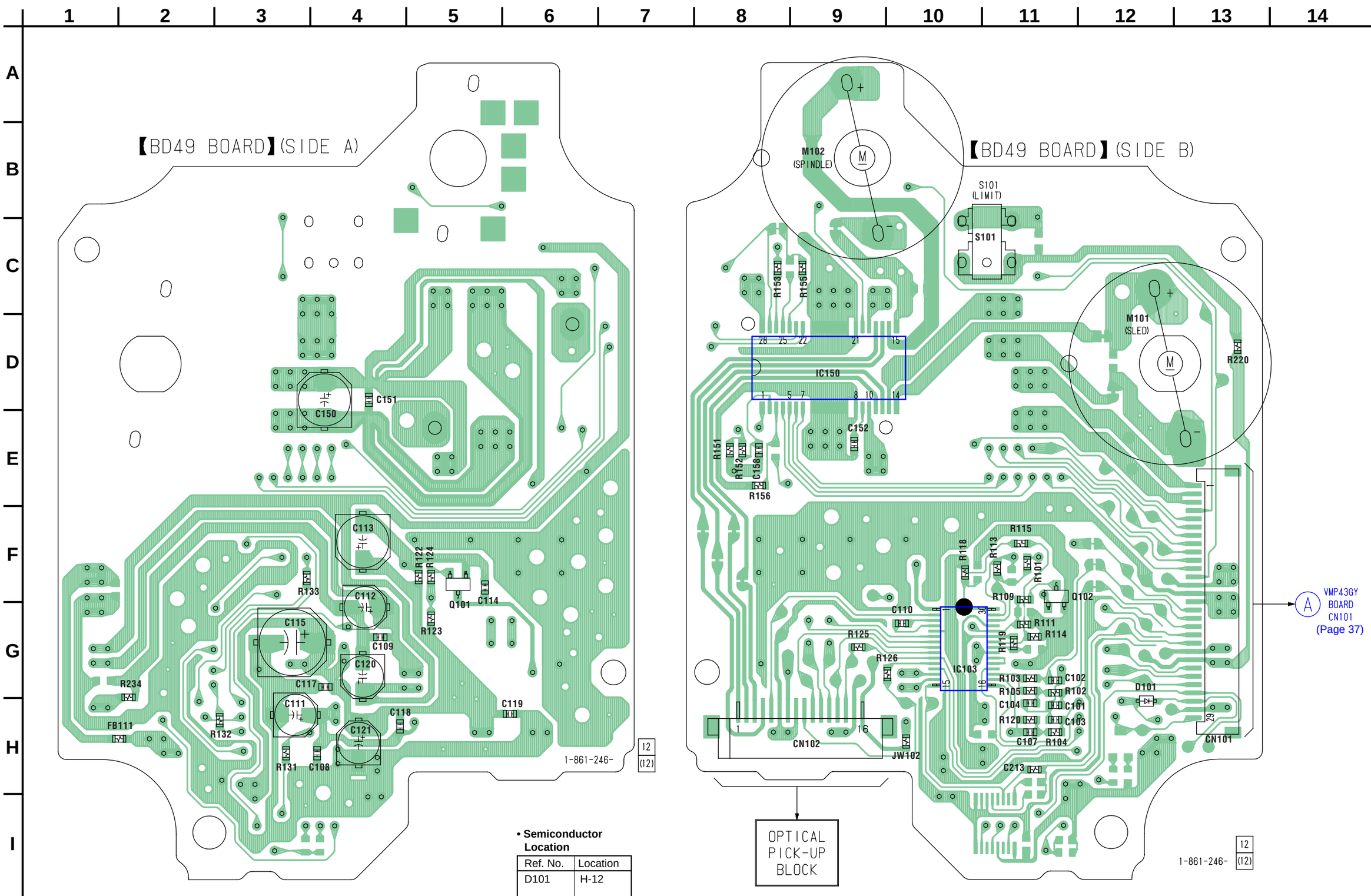
1 V/DIV, 10 µs/DIV

② IC601 ⑯ (CF2)



1 V/DIV, 0.1 µs/DIV

6-6. PRINTED WIRING BOARD — CD MECHANISM SECTION (1/2) — • Refer to page 29 for Circuit Boards Location. : Uses unleaded solder.

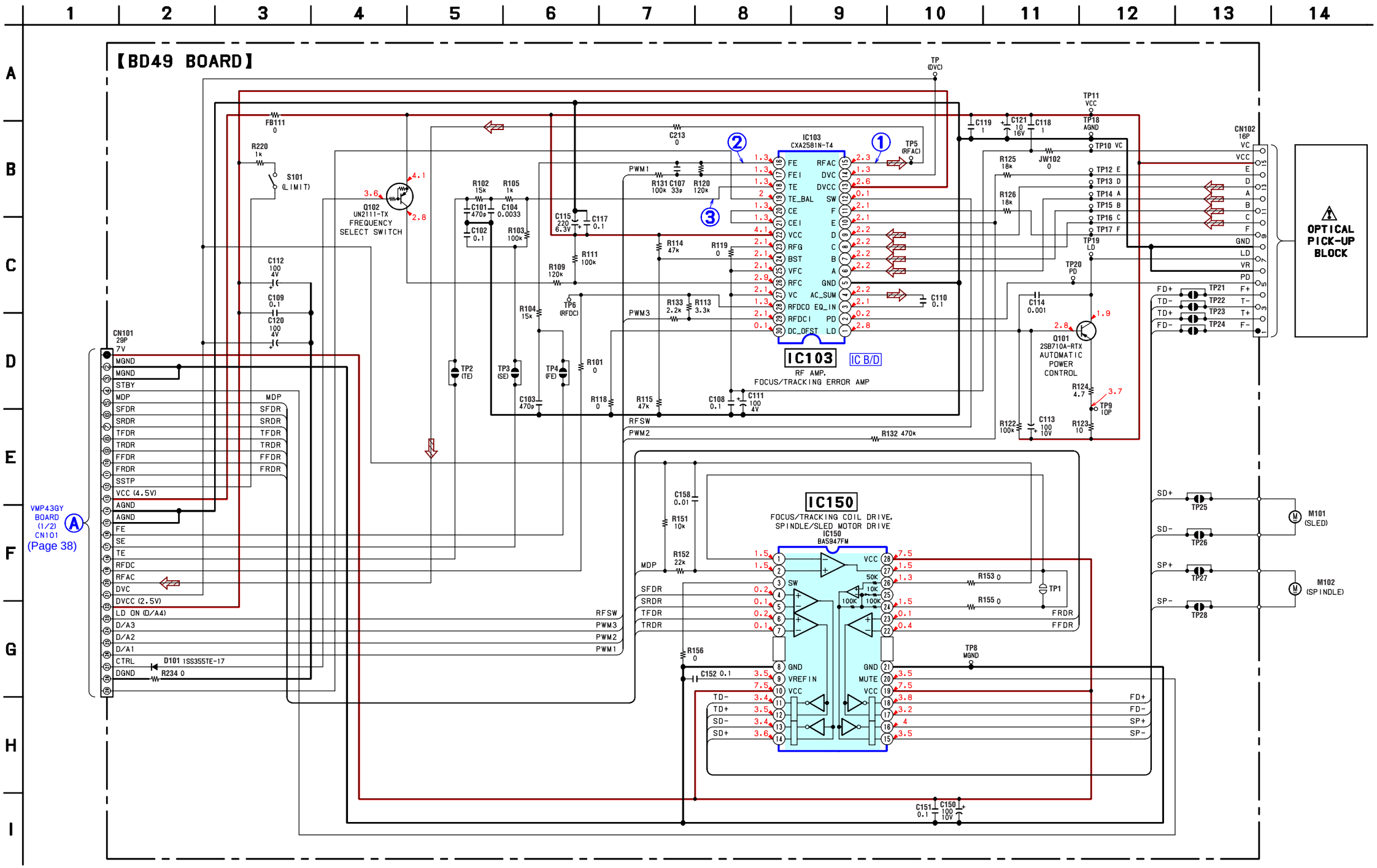


• **Semiconductor Location**

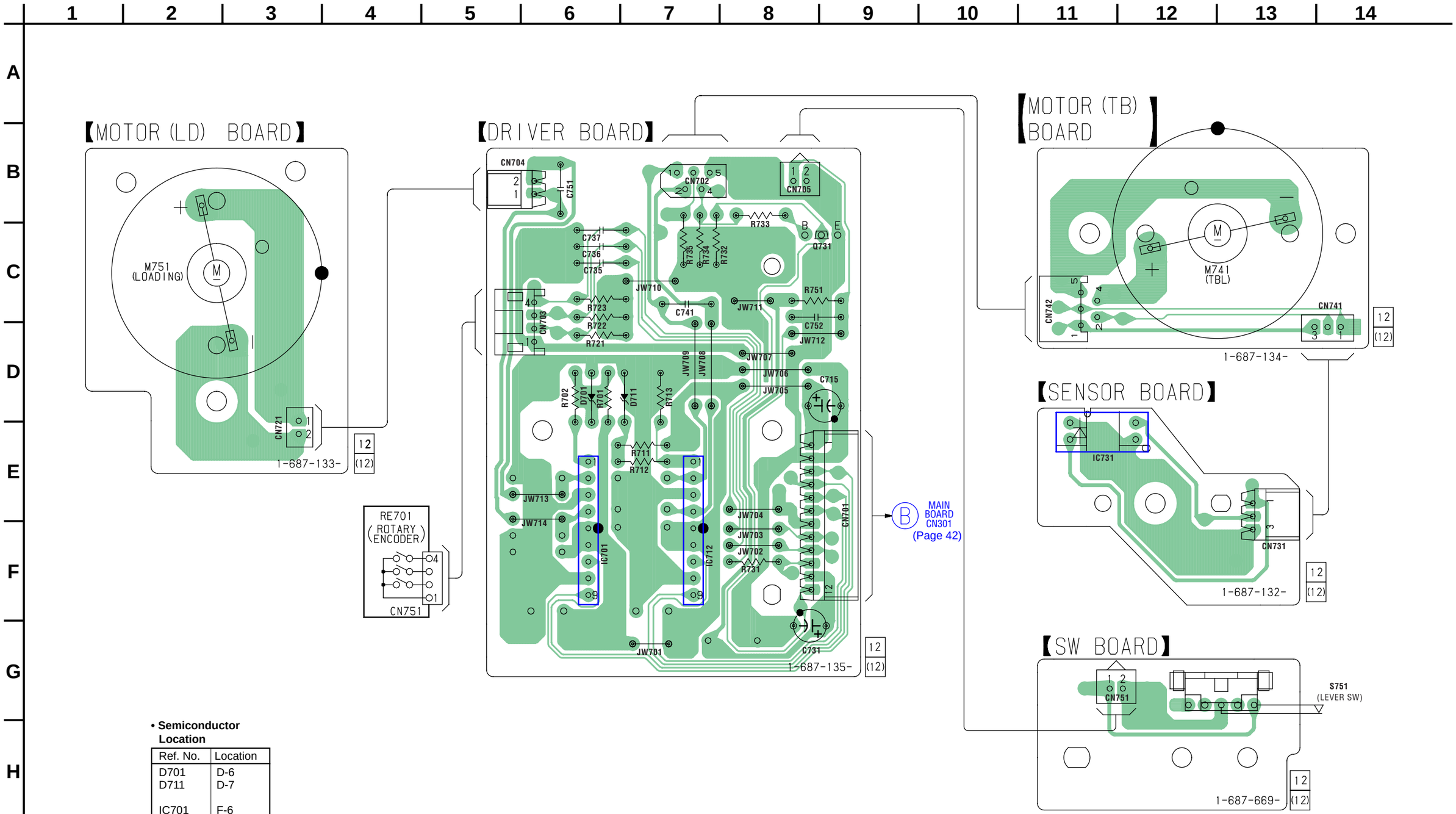
Ref. No.	Location
D101	H-12
IC103	G-10
IC150	D-9
Q101	F-5
Q102	F-11

6-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) —

• Refer to page 31 for Waveforms.
• Refer to page 51 for IC Block Diagrams.



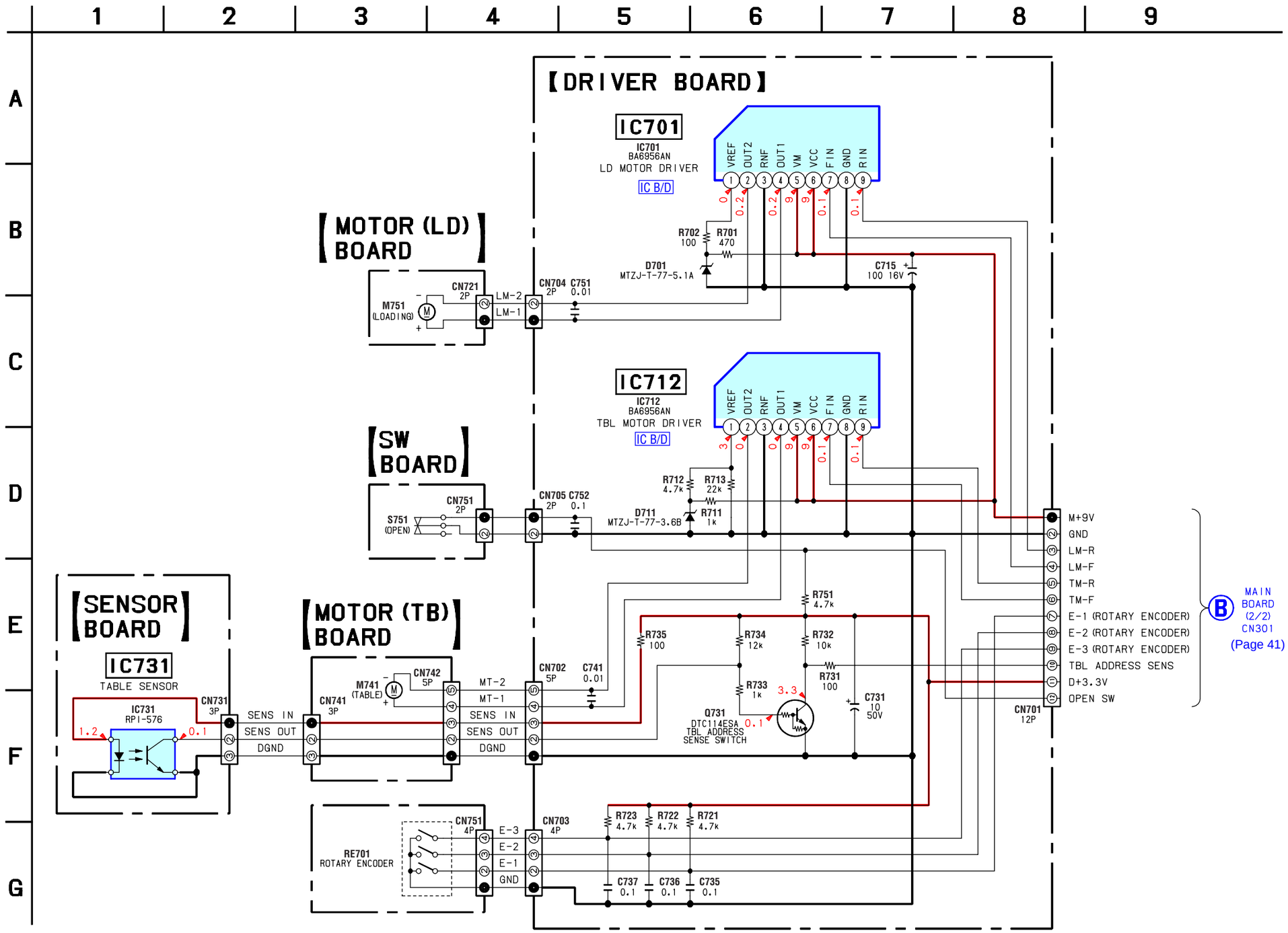
6-8. PRINTED WIRING BOARDS — CD MECHANISM SECTION (2/2) — • Refer to page 29 for Circuit Boards Location. : Uses unleaded solder.



• **Semiconductor Location**

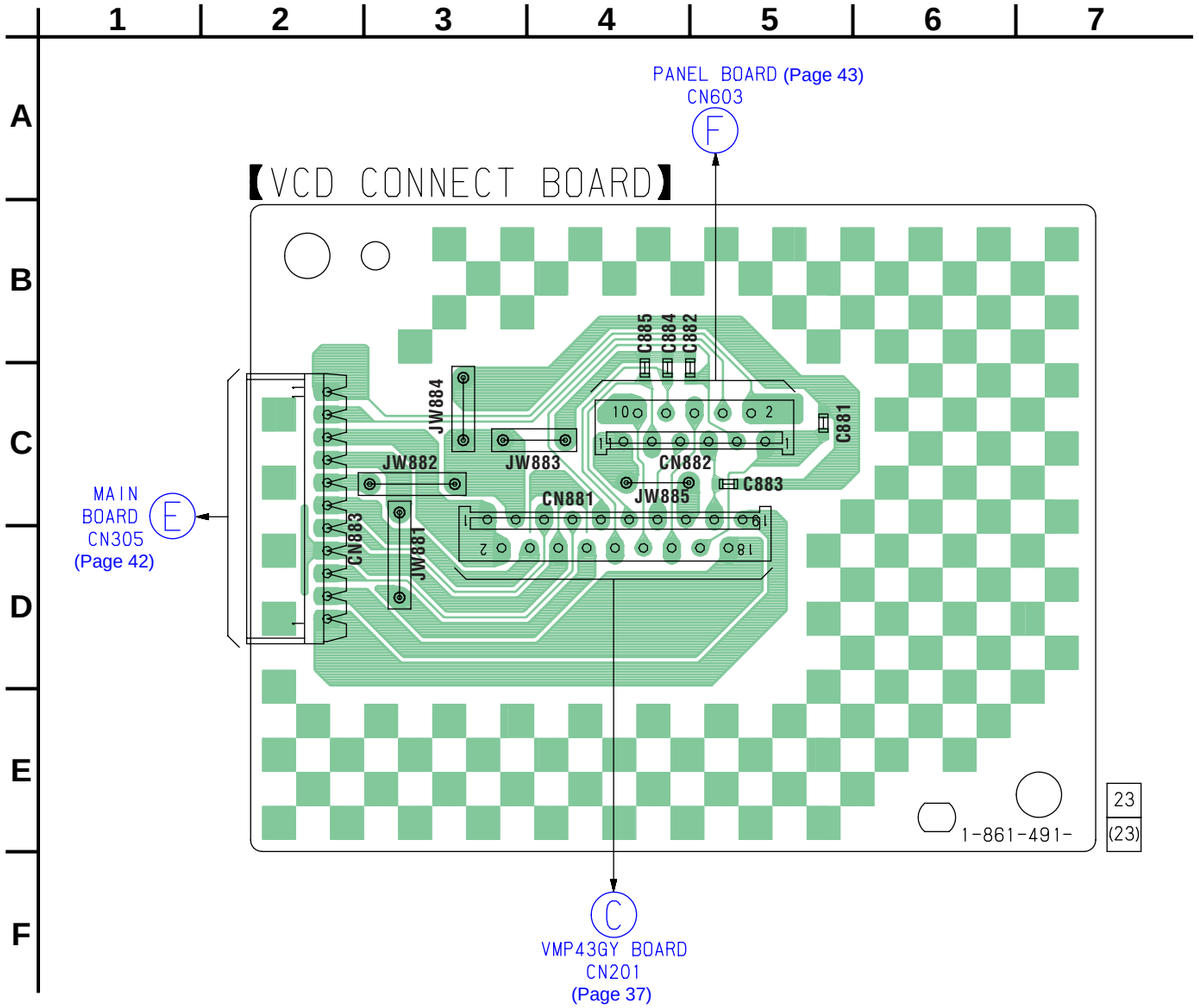
Ref. No.	Location
D701	D-6
D711	D-7
IC701	F-6
IC712	F-7
IC731	E-11
Q731	C-9

6-9. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) — • Refer to page 51 for IC Block Diagrams.

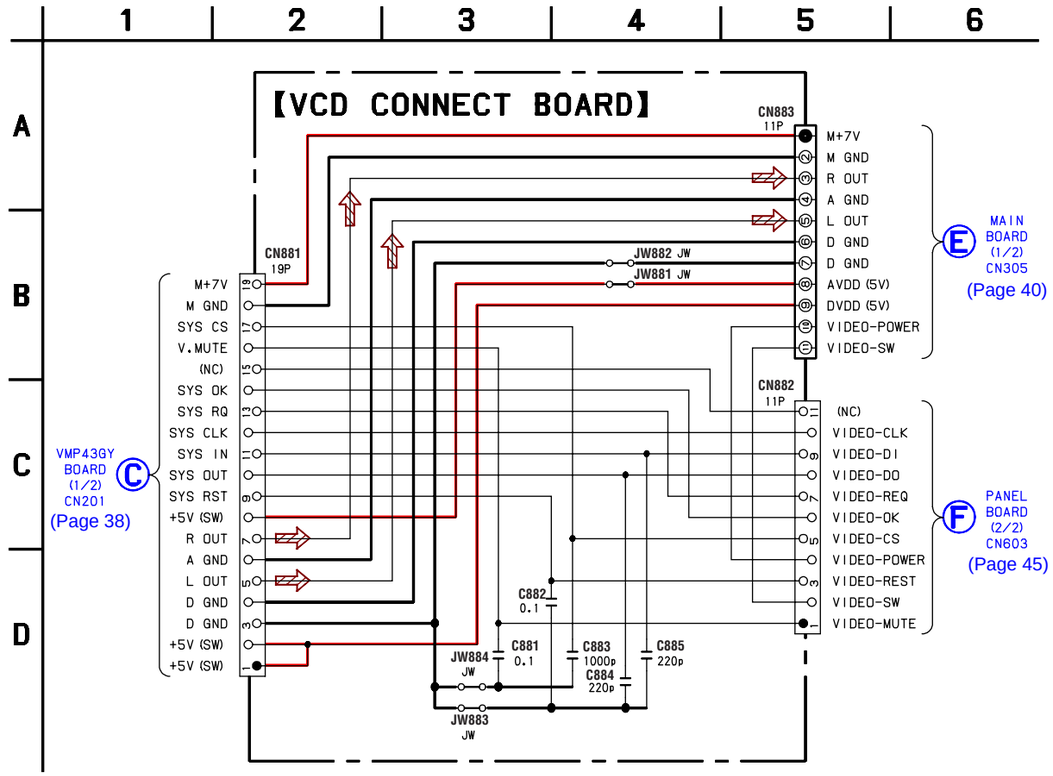


6-10. PRINTED WIRING BOARD — VCD CONNECT SECTION —

- Refer to page 29 for Circuit Boards Location.
- : Uses unleaded solder.

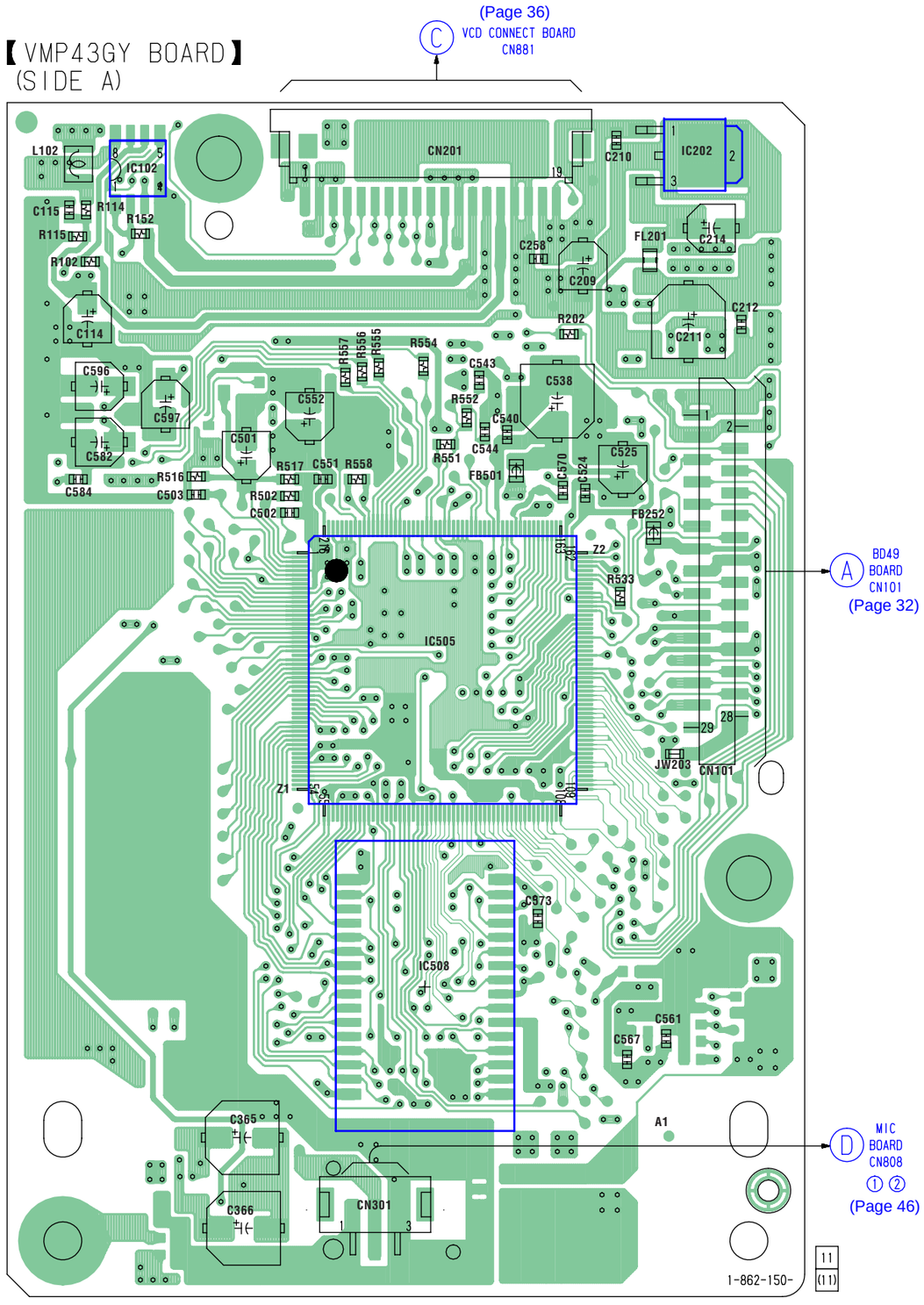


6-11. SCHEMATIC DIAGRAM — VCD CONNECT SECTION —

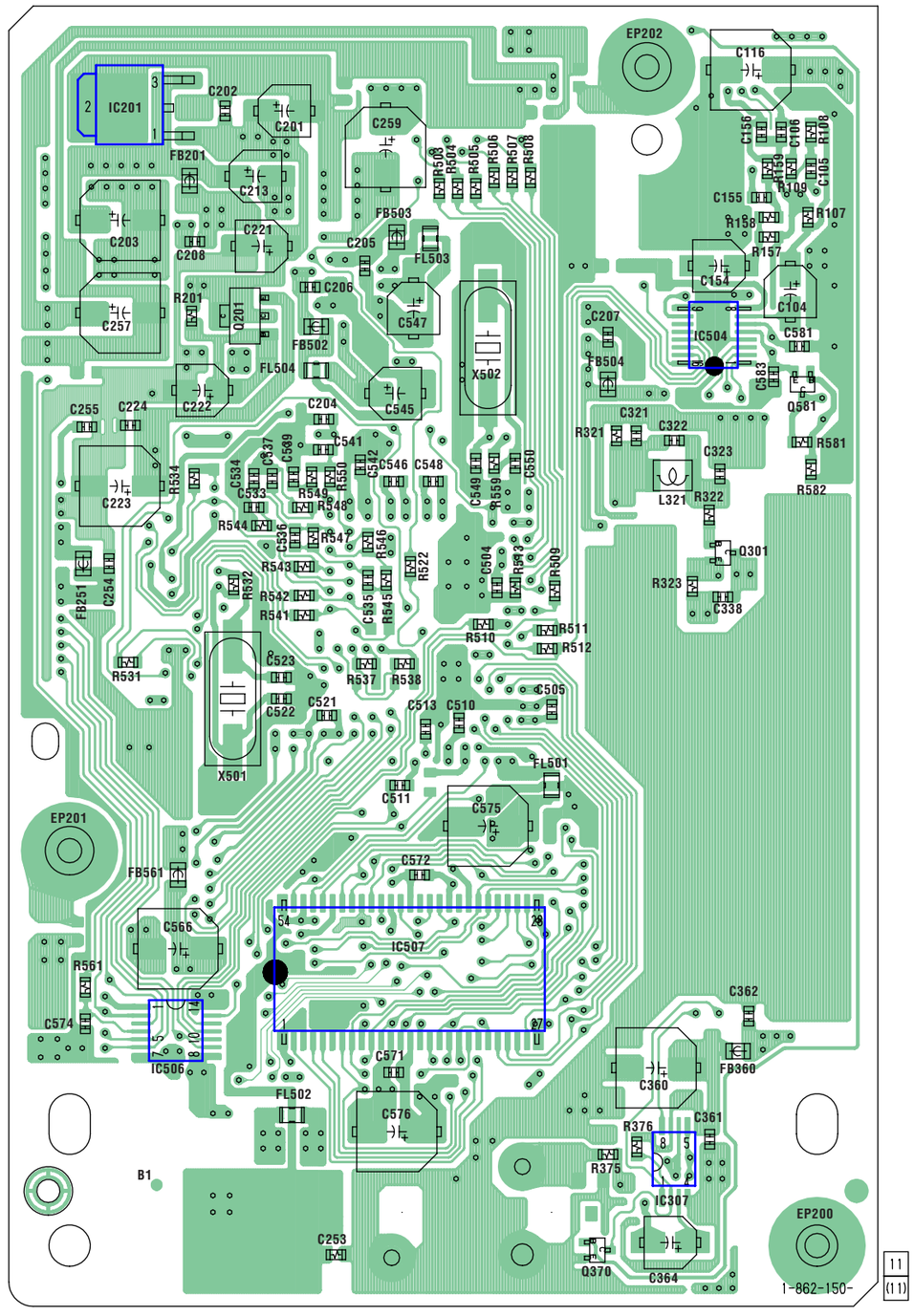


6-12. PRINTED WIRING BOARD — VMP SECTION — • Refer to page 29 for Circuit Boards Location. **: Uses unleaded solder.**

【VMP43GY BOARD】
(SIDE A)



【VMP43GY BOARD】(SIDE B)

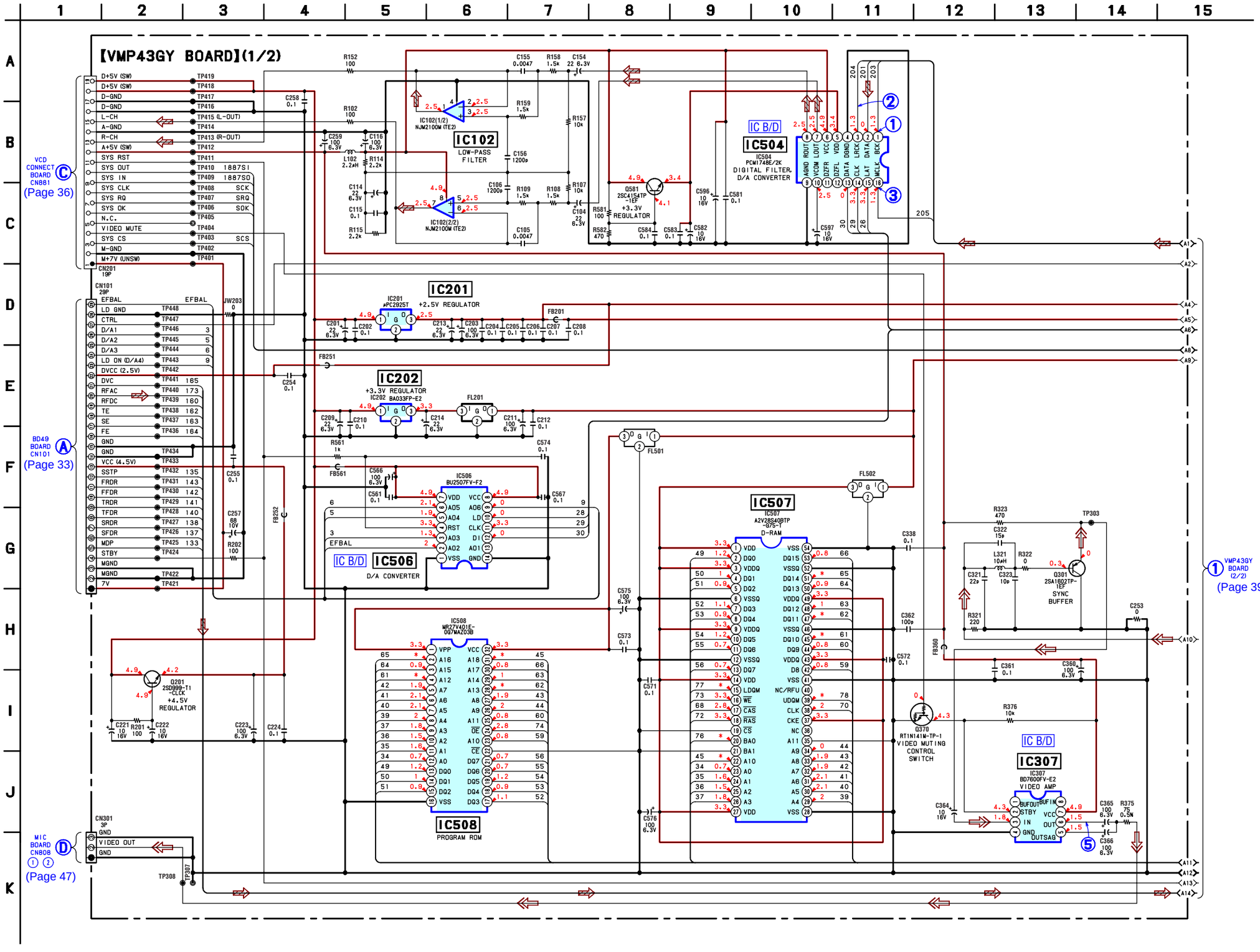


• **Semiconductor Location**

Ref. No.	Location
IC102	B-2
IC201	B-8
IC202	B-6
IC307	I-12
IC504	C-12
IC505	E-4
IC506	H-9
IC507	G-10
IC508	G-4
Q201	C-9
Q301	E-12
Q370	I-11
Q581	D-13

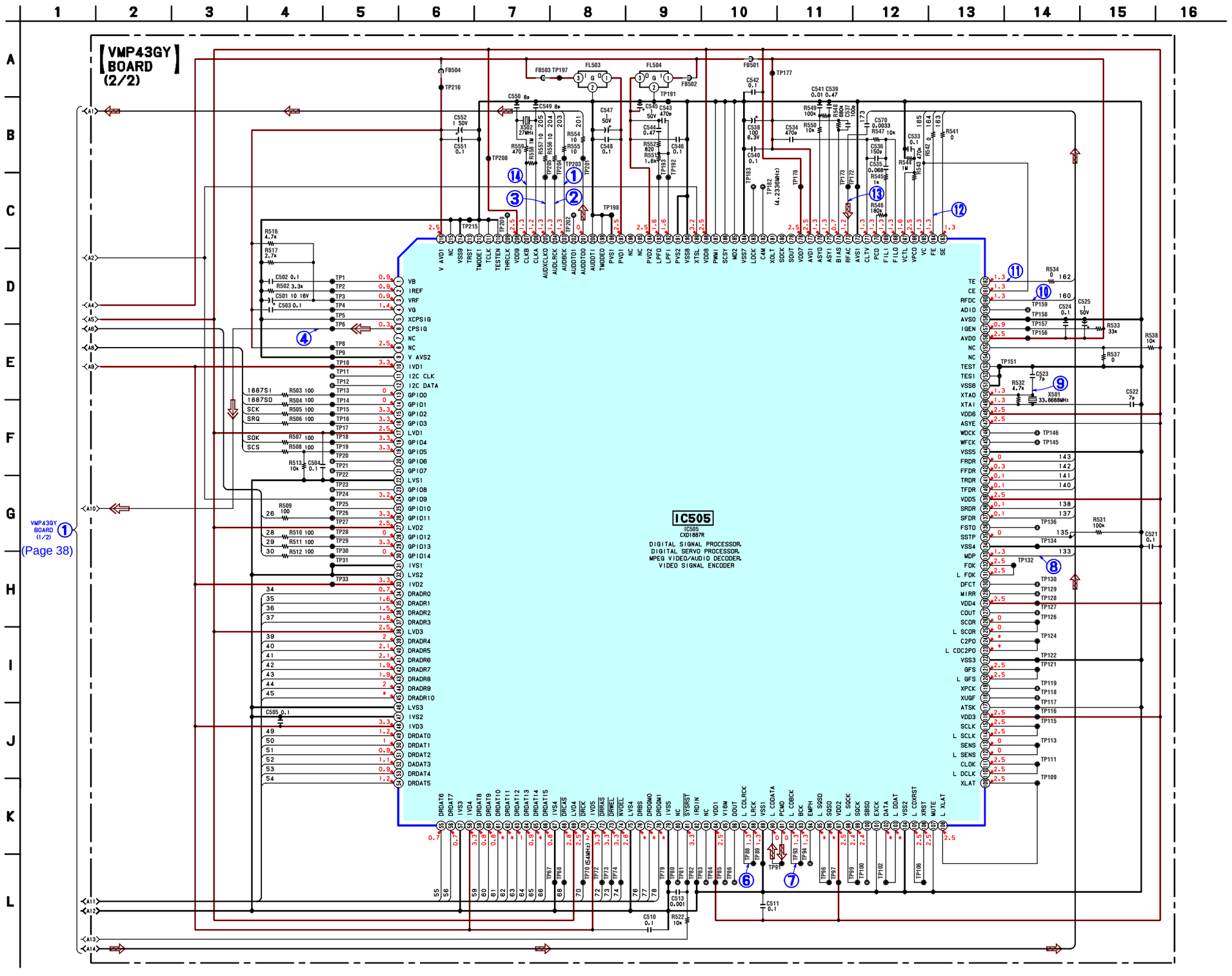
6-13. SCHEMATIC DIAGRAM — VMP SECTION (1/2) —

• Refer to page 31 for Waveforms.
• Refer to page 52 for IC Block Diagrams.

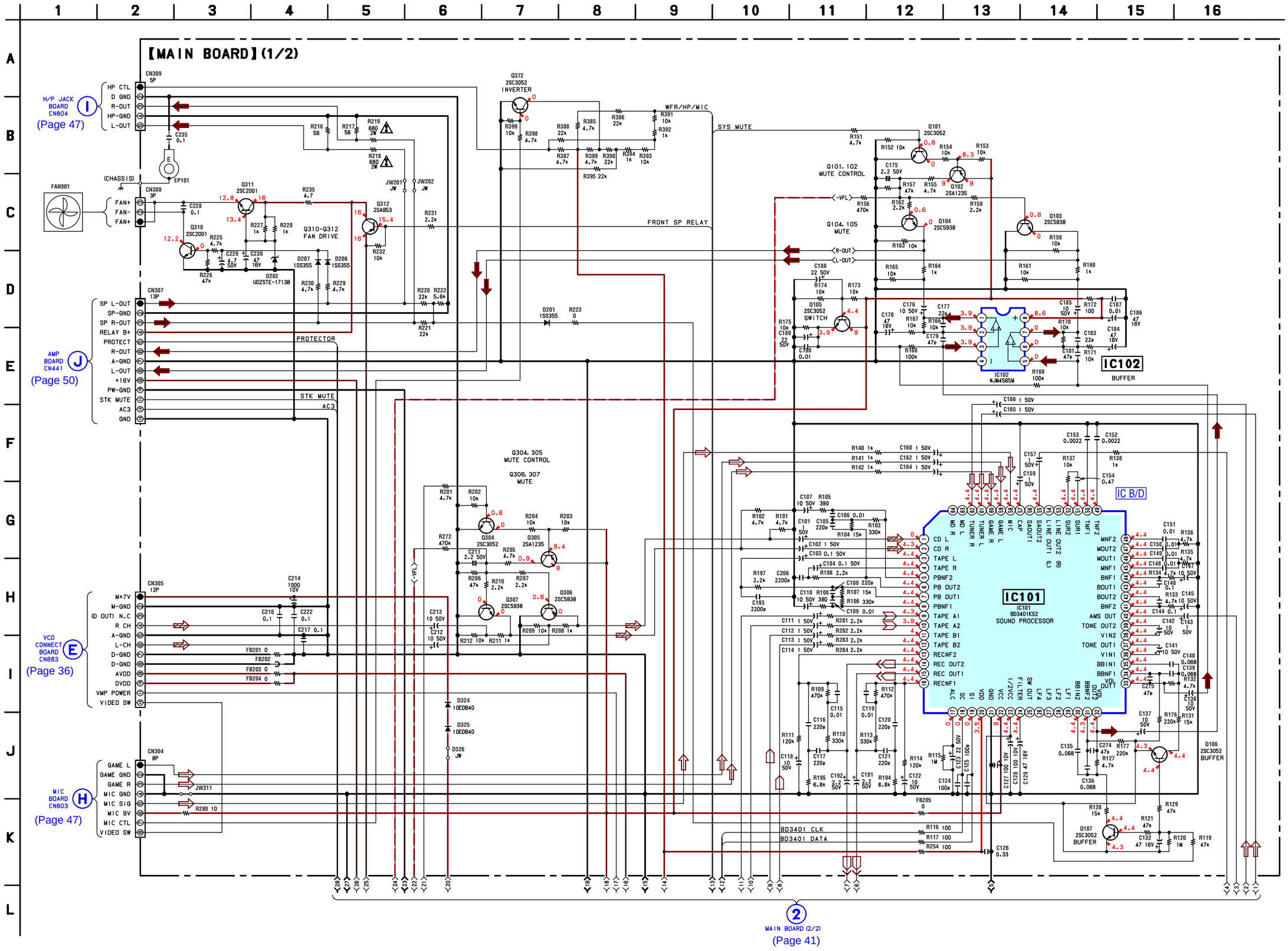

【VMP43GY BOARD】(1/2)
IC102 LOW-PASS FILTER
IC102(1/2) NJM2100M (TE2)
IC102(2/2) NJM2100M (TE2)
IC504 PCM1748E/2K DIGITAL FILTER, D/A CONVERTER
IC201 +2.5V REGULATOR
IC202 +3.3V REGULATOR BA033FP-E2
IC506 BU2507FV-F2 D/A CONVERTER
IC507 A2V28S40BTP-075-T D-RAM
IC508 PROGRAM ROM
IC307 BD7600FV-E2 VIDEO AMP
Q581 2SC4154TP-TEF +3.3V REGULATOR
Q201 2SD999-T1-CLCK +4.5V REGULATOR
Q370 RT1N141M-TP-1 VIDEO MUTING CONTROL SWITCH
Q301 2SA1602TP-TEF SYNC BUFFER
VCD CONNECT BOARD CN881 (Page 36)
BD49 BOARD CN101 (Page 33)
MIC BOARD CN808 (Page 47)
VMP43GY BOARD (2/2) (Page 39)

6-14. SCHEMATIC DIAGRAM — VMP SECTION (2/2) —

• Refer to page 31 for Waveforms.
• Refer to page 54 for IC Pin Description of IC505.

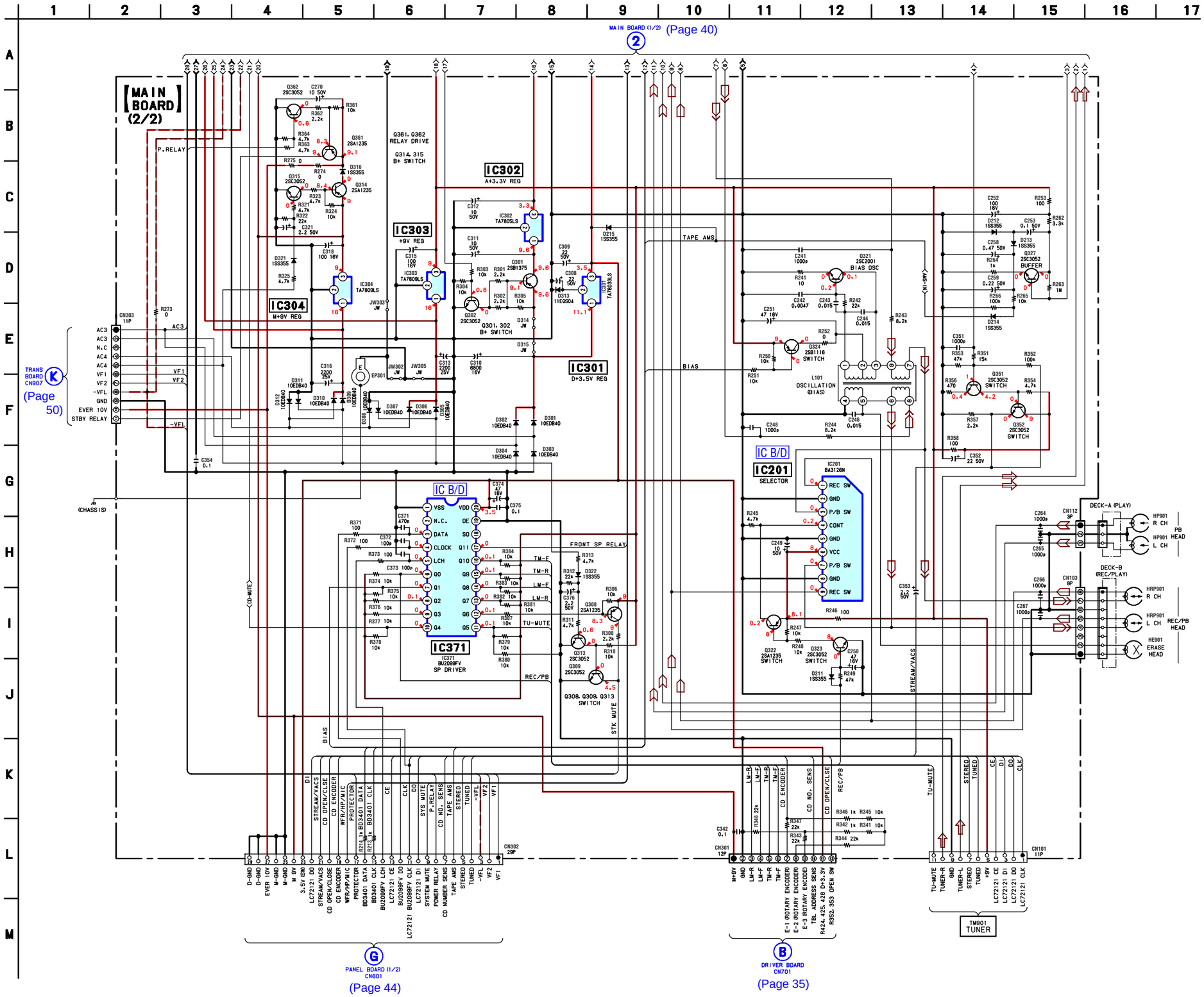


6-15. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 53 for IC Block Diagrams.

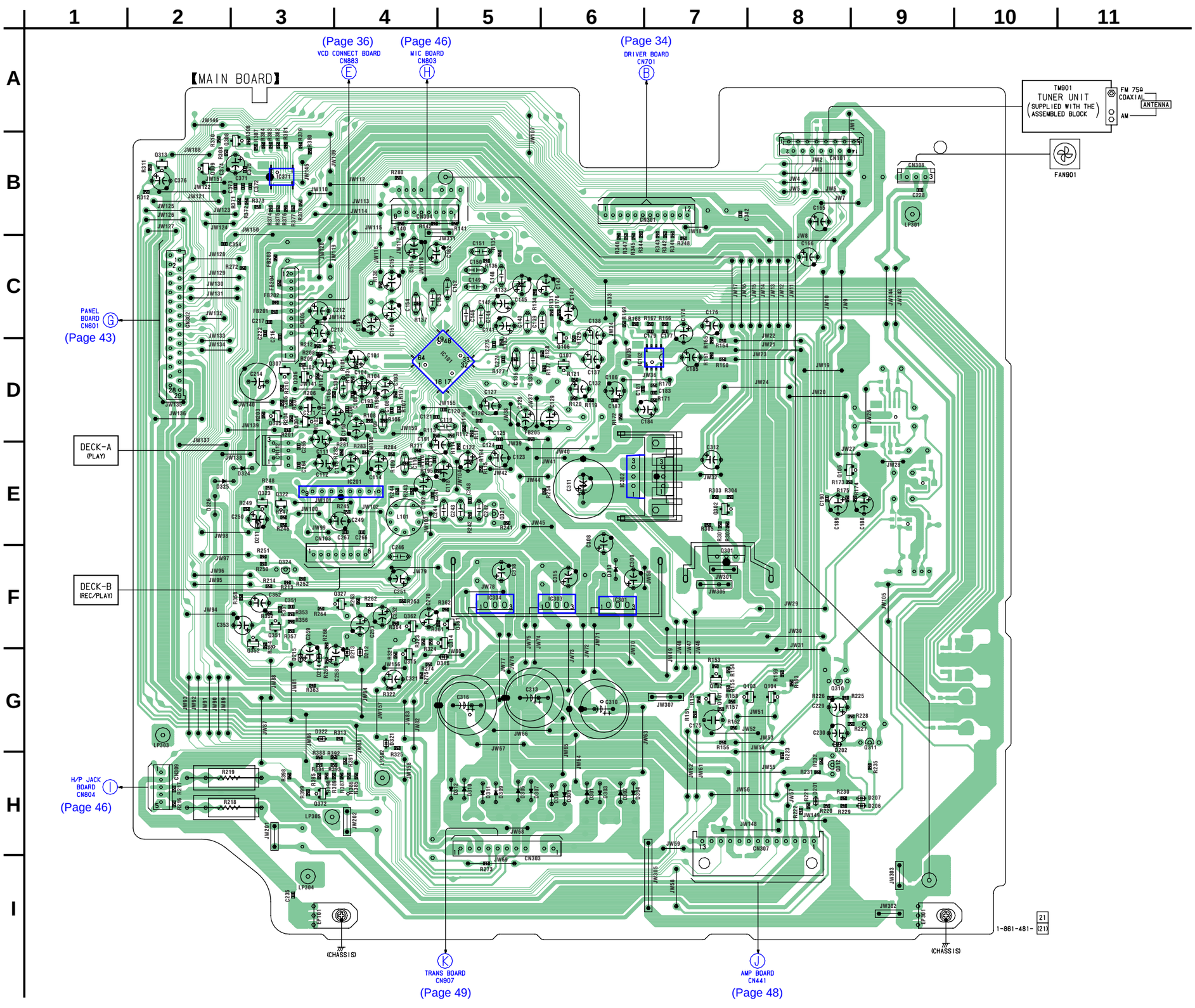


6-16. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) —

• Refer to page 53 for IC Block Diagrams.
• Refer to page 59 for IC Pin Description of IC371.



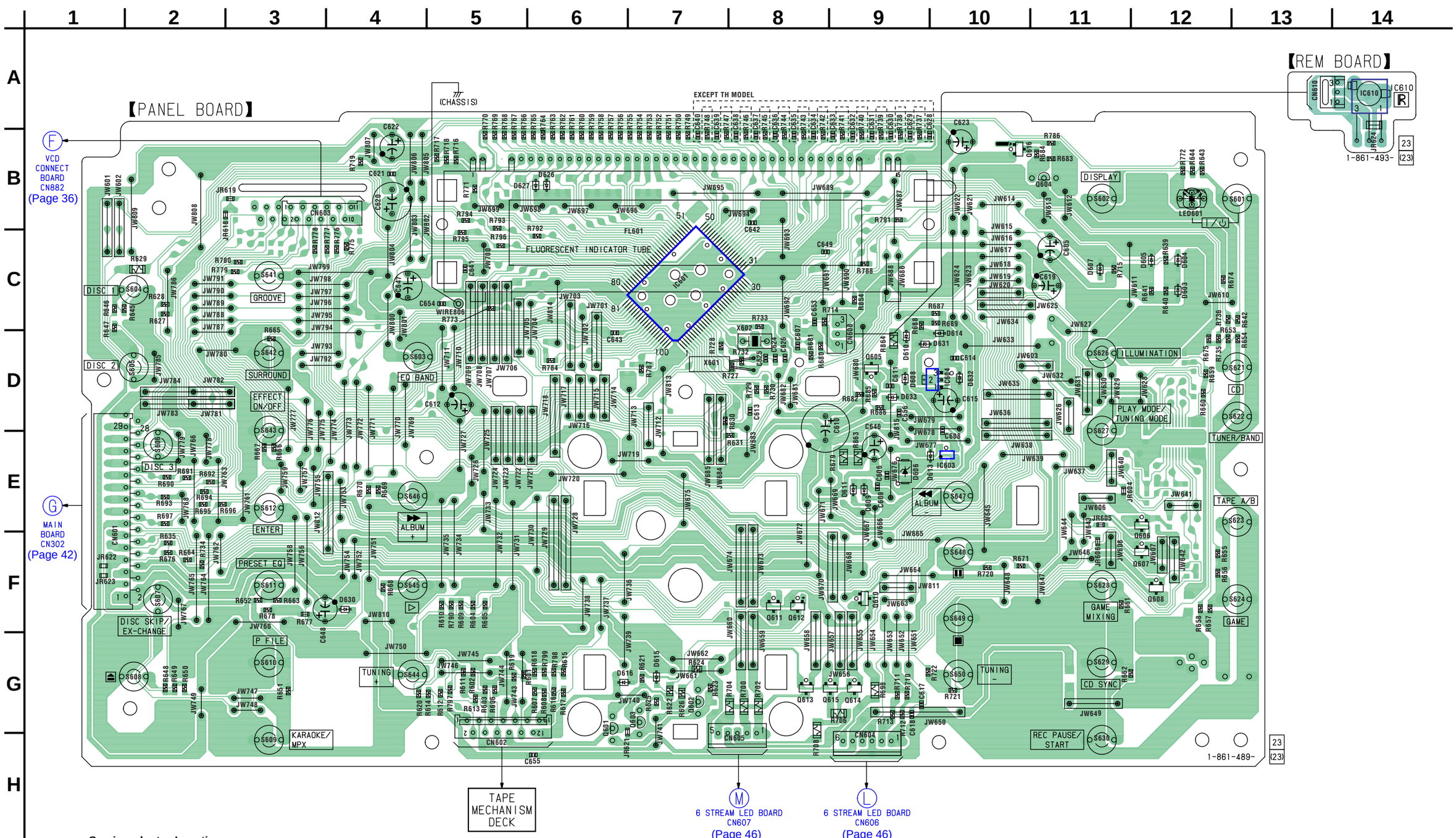
6-17. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 29 for Circuit Boards Location. : Uses unleaded solder.



• **Semiconductor Location**

Ref. No.	Location
D201	H-8
D202	G-8
D206	H-9
D207	H-9
D211	E-3
D212	G-4
D213	G-4
D214	G-3
D215	G-3
D301	H-6
D302	H-6
D303	H-6
D304	H-6
D305	H-5
D306	H-6
D307	H-5
D308	H-6
D309	H-5
D310	H-5
D311	H-5
D312	H-5
D313	F-6
D316	G-5
D321	G-4
D322	G-3
D324	E-3
D325	E-2
IC101	D-5
IC102	D-7
IC201	E-4
IC301	F-6
IC302	E-6
IC303	F-6
IC304	F-5
IC371	B-3
Q101	G-7
Q102	G-7
Q103	G-8
Q104	G-8
Q105	E-8
Q106	D-6
Q107	D-6
Q301	F-7
Q302	E-7
Q304	D-3
Q305	D-3
Q306	D-3
Q307	D-3
Q308	B-3
Q309	B-2
Q310	G-8
Q311	G-9
Q312	H-8
Q313	B-2
Q314	F-5
Q315	G-4
Q321	E-5
Q322	E-3
Q323	E-3
Q324	F-3
Q327	F-4
Q351	F-3
Q352	F-3
Q361	F-5
Q362	F-4
Q372	H-3

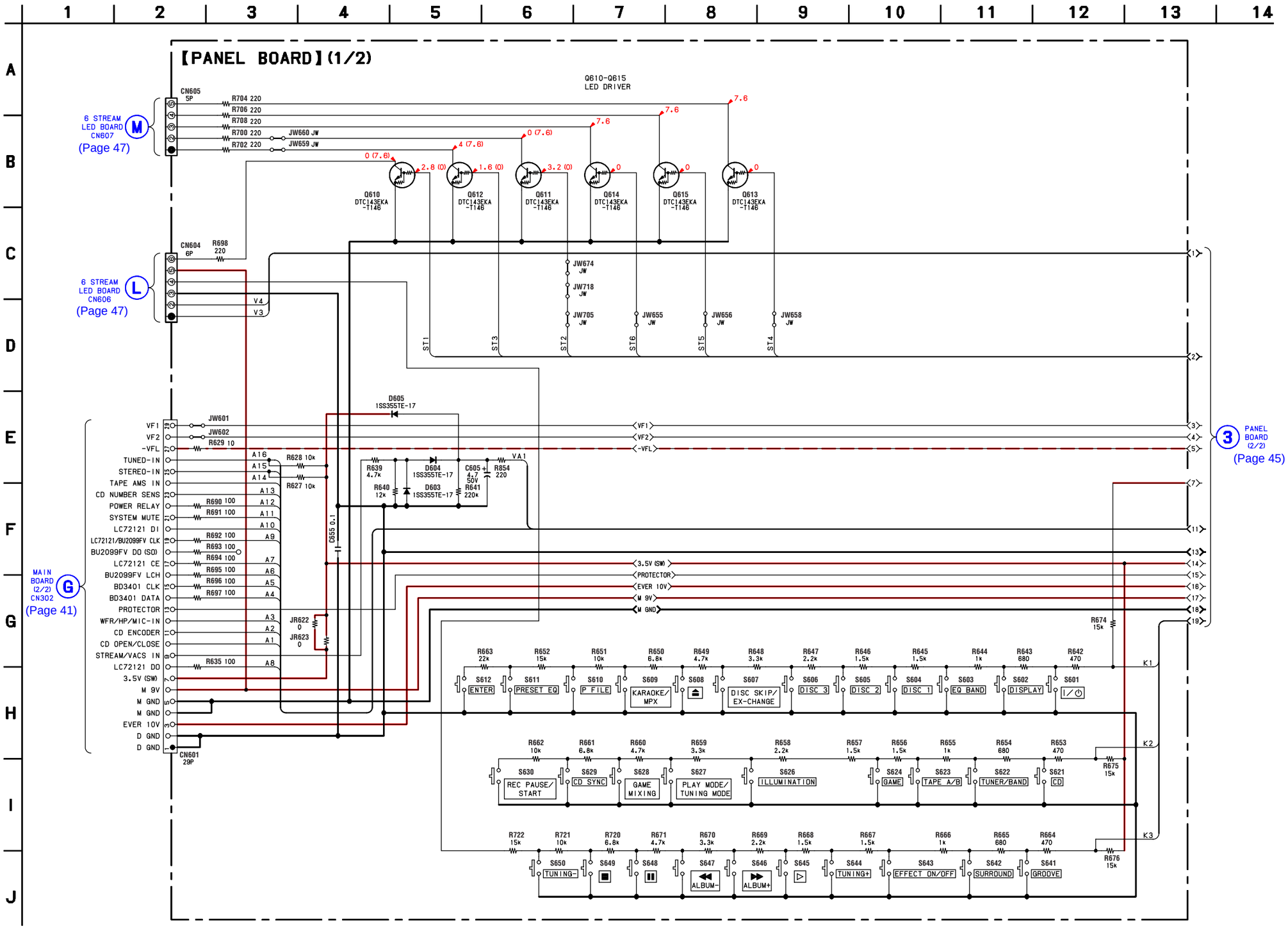
6-18. PRINTED WIRING BOARDS — PANEL SECTION — • Refer to page 29 for Circuit Boards Location. : Uses unleaded solder.



• **Semiconductor Location**

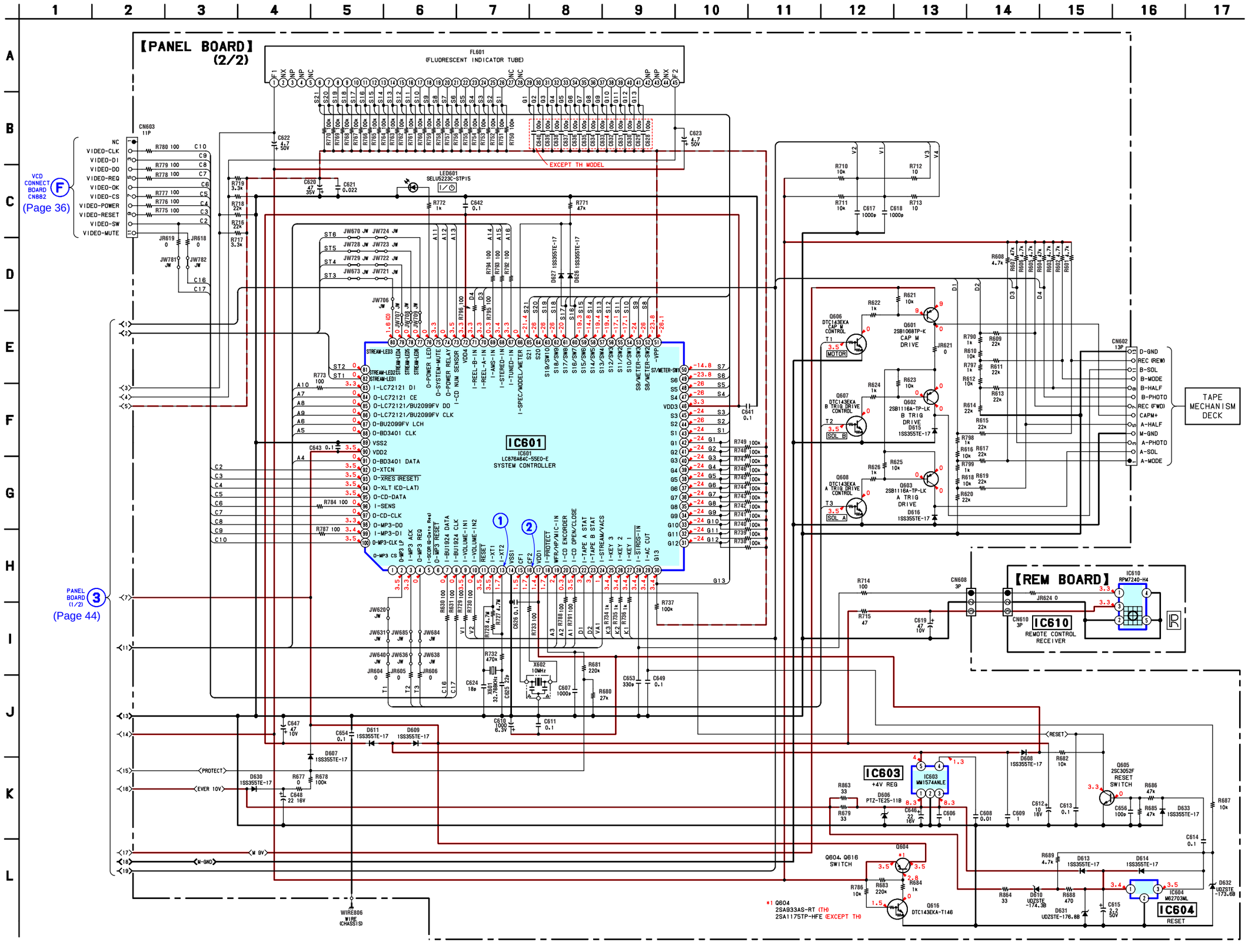
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D603	C-12	D615	G-7	IC604	D-10	Q607	F-12
D604	C-12	D616	G-6	IC610	A-14	Q608	F-12
D605	C-12	D626	B-6			Q610	F-9
D606	E-9	D627	B-6	LED601	B-12	Q611	F-8
D607	C-11	D630	F-4			Q612	F-8
D608	D-9	D631	D-9	Q601	G-6	Q613	G-8
D609	E-9	D632	D-10	Q602	G-7	Q614	G-9
D610	D-9	D633	D-9	Q603	G-7	Q615	G-8
D611	E-9			Q604	B-11	Q616	B-10
D613	E-10	IC601	C-7	Q605	D-9		
D614	D-10	IC603	E-10	Q606	E-12		

6-19. SCHEMATIC DIAGRAM — PANEL SECTION (1/2) —



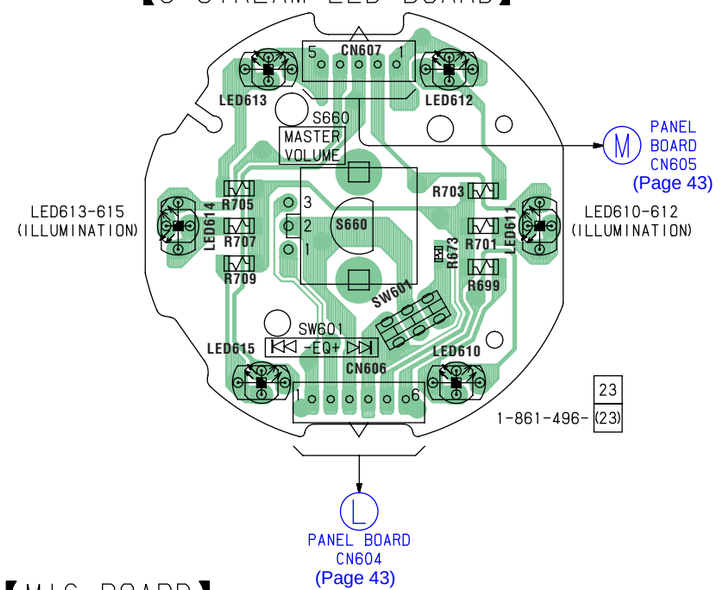
6-20. SCHEMATIC DIAGRAM — PANEL SECTION (2/2) —

• Refer to page 31 for Waveforms.
• Refer to page 60 for IC Pin Description of IC601.

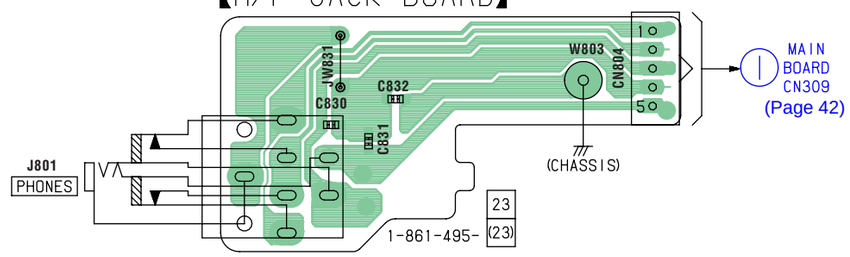


6-21. PRINTED WIRING BOARDS — JACK SECTION — • Refer to page 29 for Circuit Boards Location. : Uses unleaded solder.

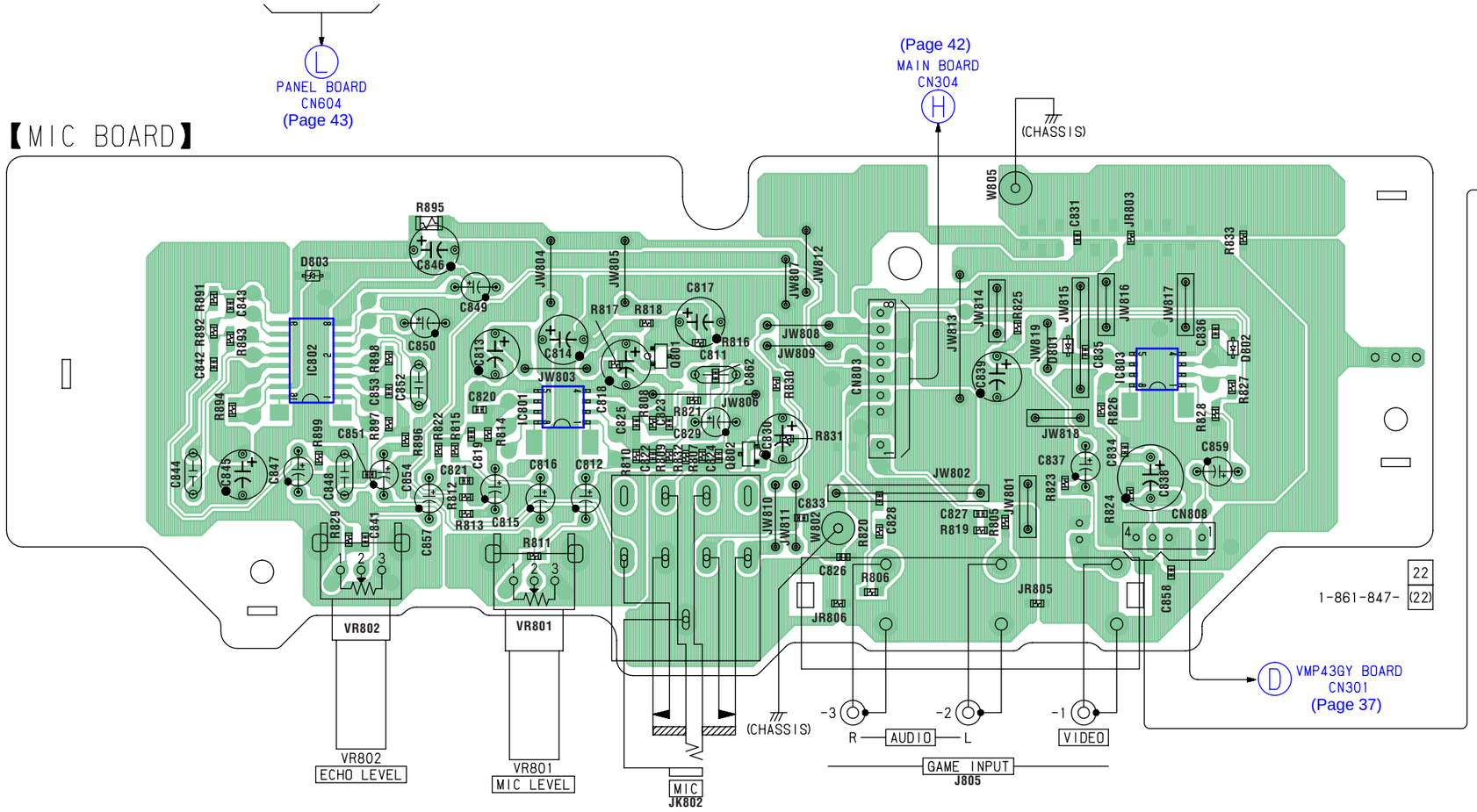
【6 STREAM LED BOARD】



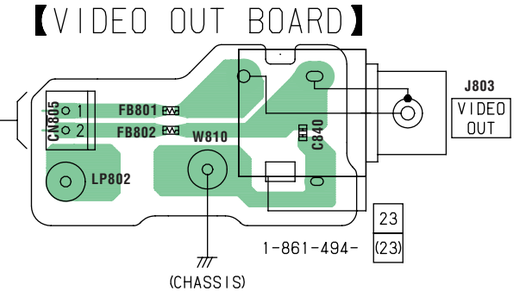
【H/P JACK BOARD】



【MIC BOARD】



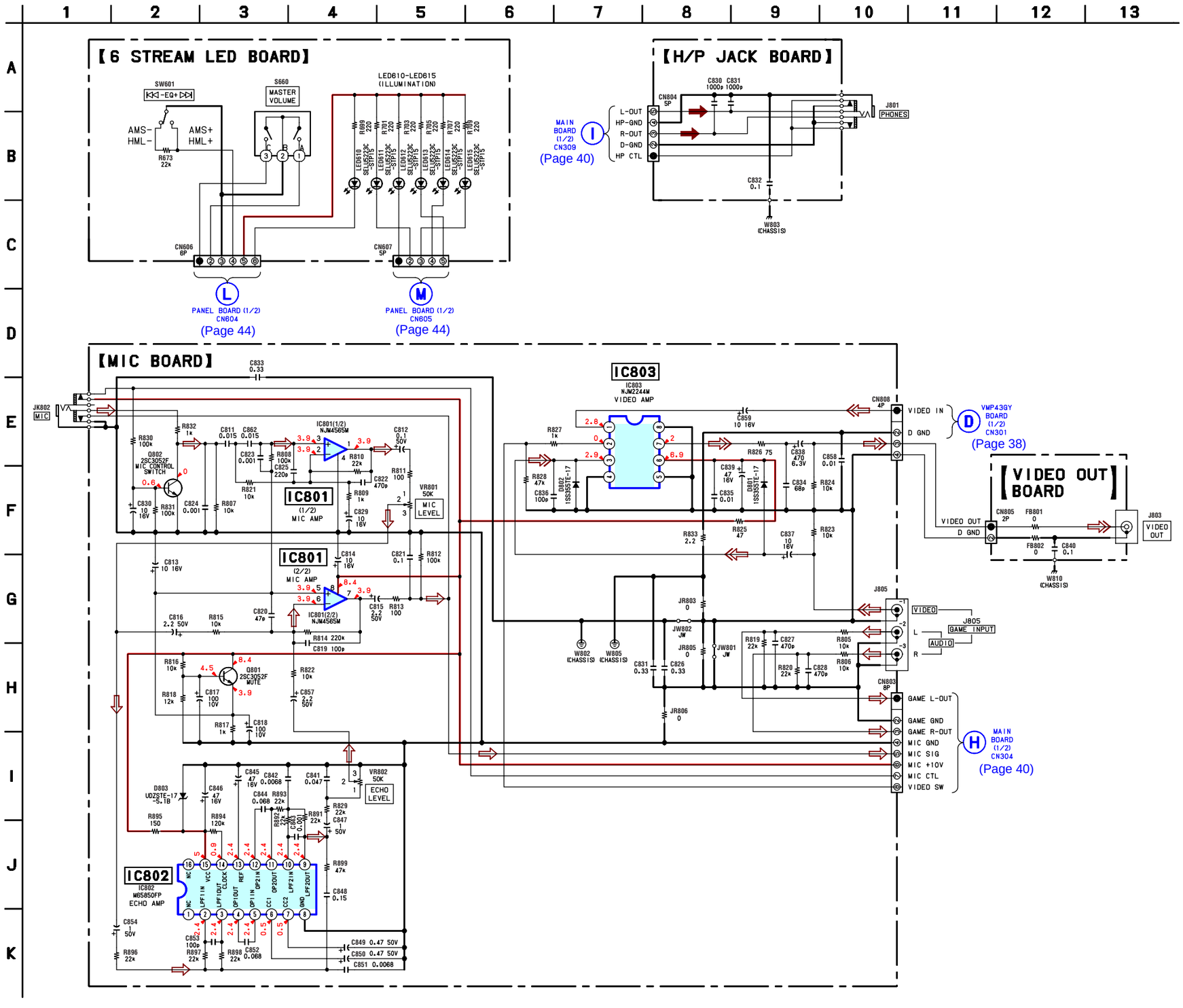
【VIDEO OUT BOARD】



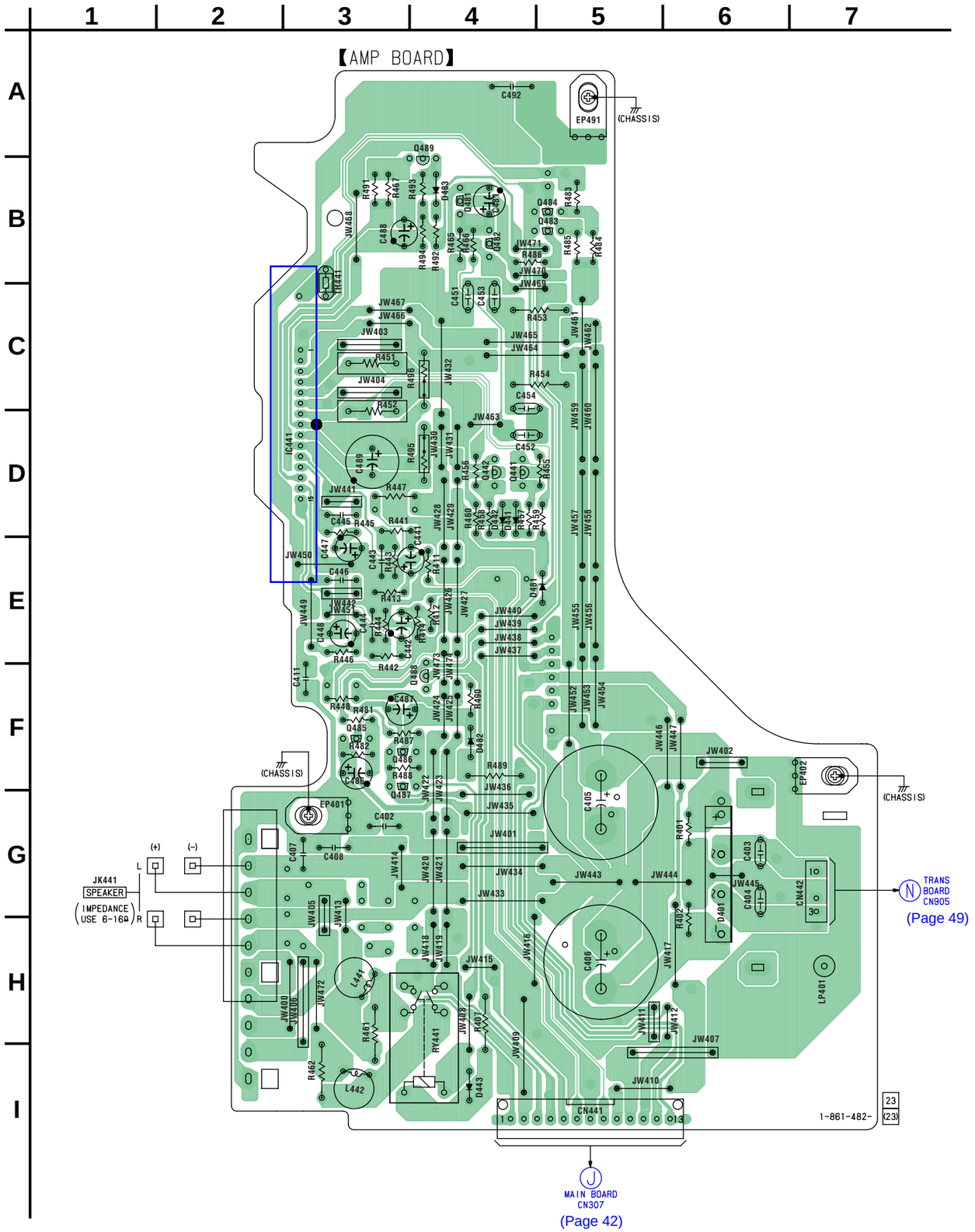
• **Semiconductor Location**

Ref. No.	Location
D801	F-8
D802	F-9
D803	F-3
IC801	F-5
IC802	F-3
IC803	F-9
LED610	C-4
LED611	B-4
LED612	A-4
LED613	A-3
LED614	B-2
LED615	C-2
Q801	F-5
Q802	G-6

6-22. SCHEMATIC DIAGRAM — JACK SECTION —



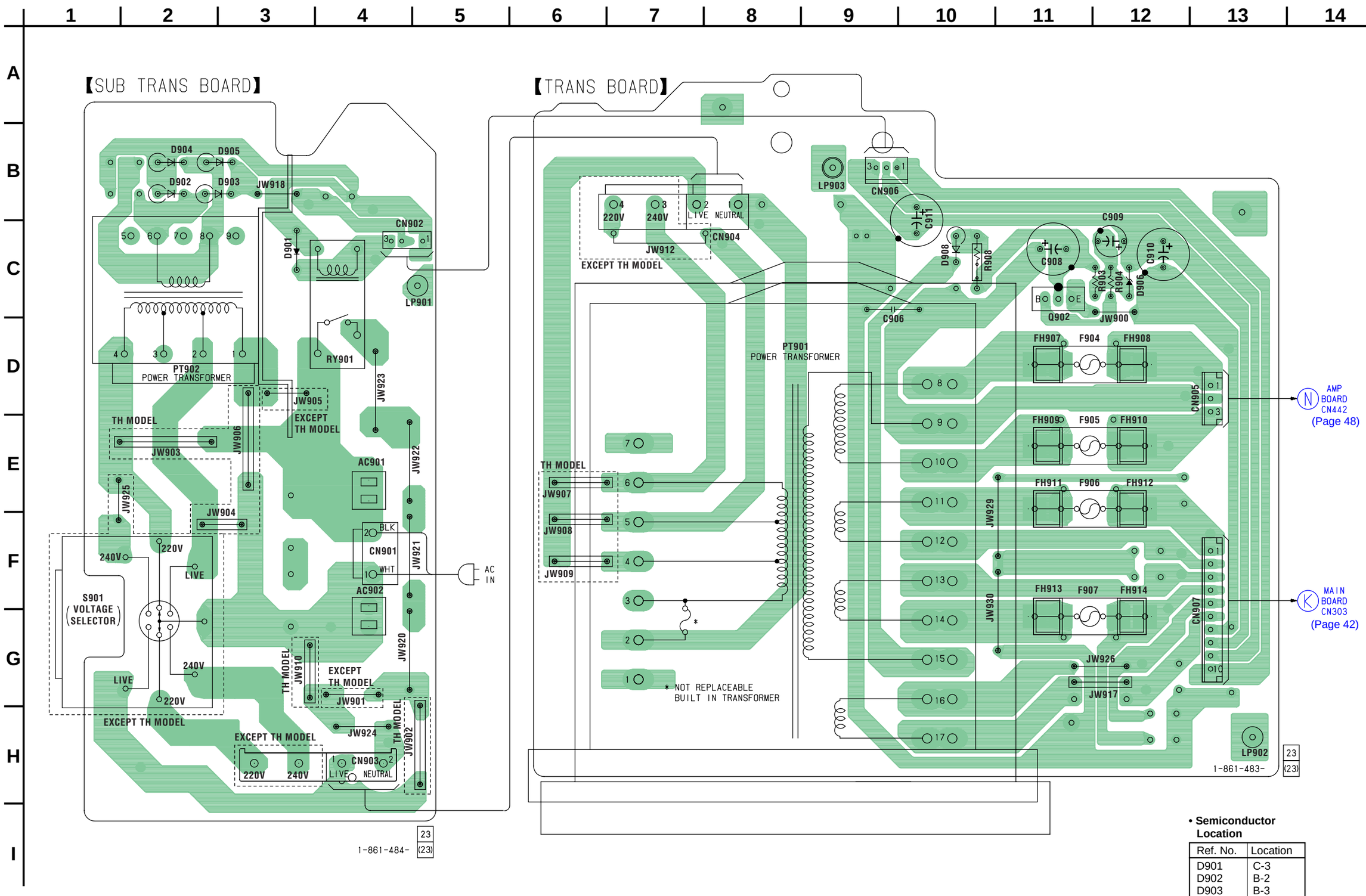
6-23. PRINTED WIRING BOARD — POWER SECTION (1/2) — • Refer to page 29 for Circuit Boards Location. : Uses unleaded solder.



- **Semiconductor Location**

Ref. No.	Location
D401	G-6
D441	D-4
D442	D-4
D443	I-4
D481	E-4
D482	F-4
D483	B-4
IC441	D-3
Q441	D-4
Q442	D-4
Q481	B-4
Q482	B-4
Q483	B-5
Q484	B-5
Q485	F-3
Q486	F-3
Q487	F-3
Q488	F-4
Q489	B-4

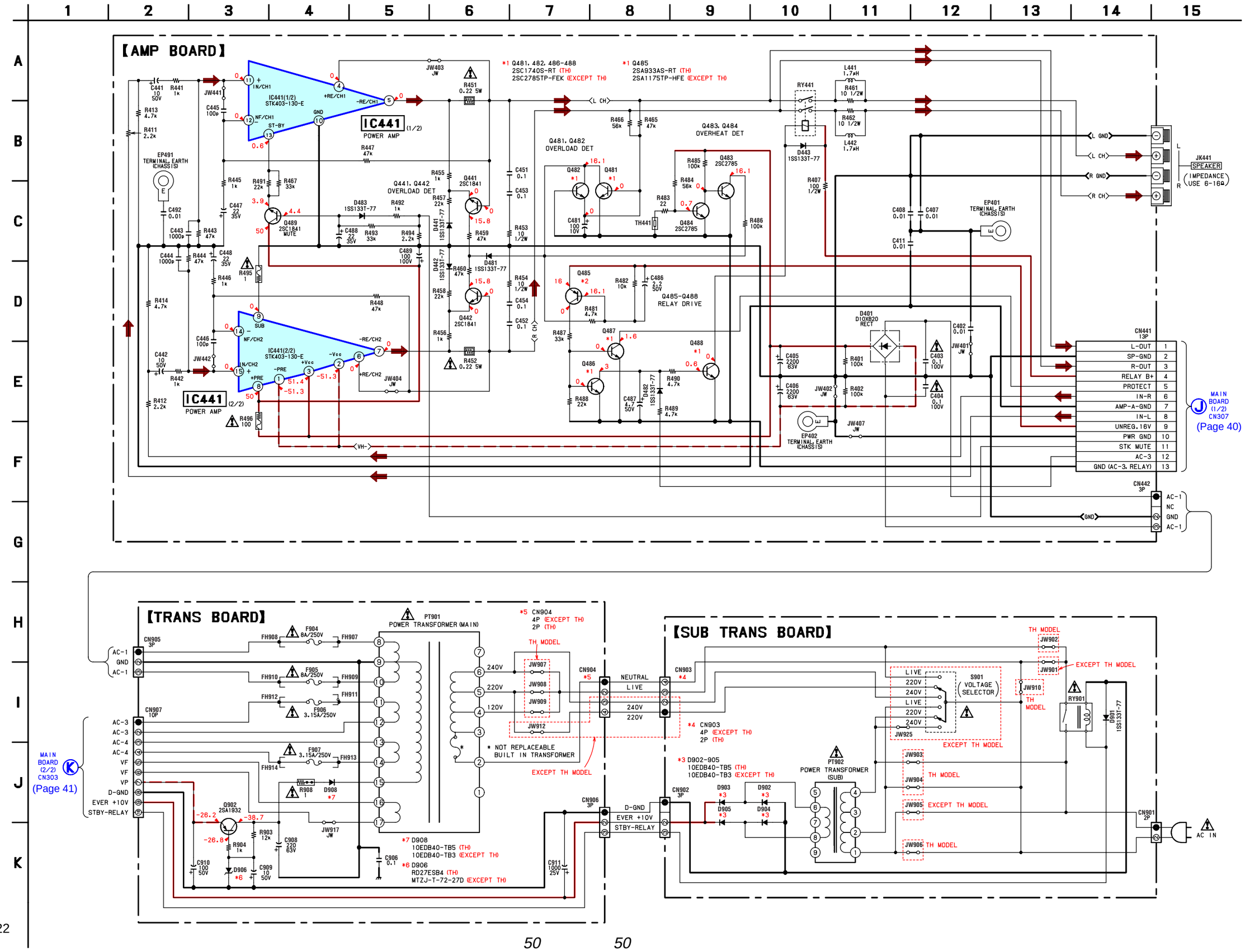
6-24. PRINTED WIRING BOARDS — POWER SECTION (2/2) — • Refer to page 29 for Circuit Boards Location. **: Uses unleaded solder.**



- **Semiconductor Location**

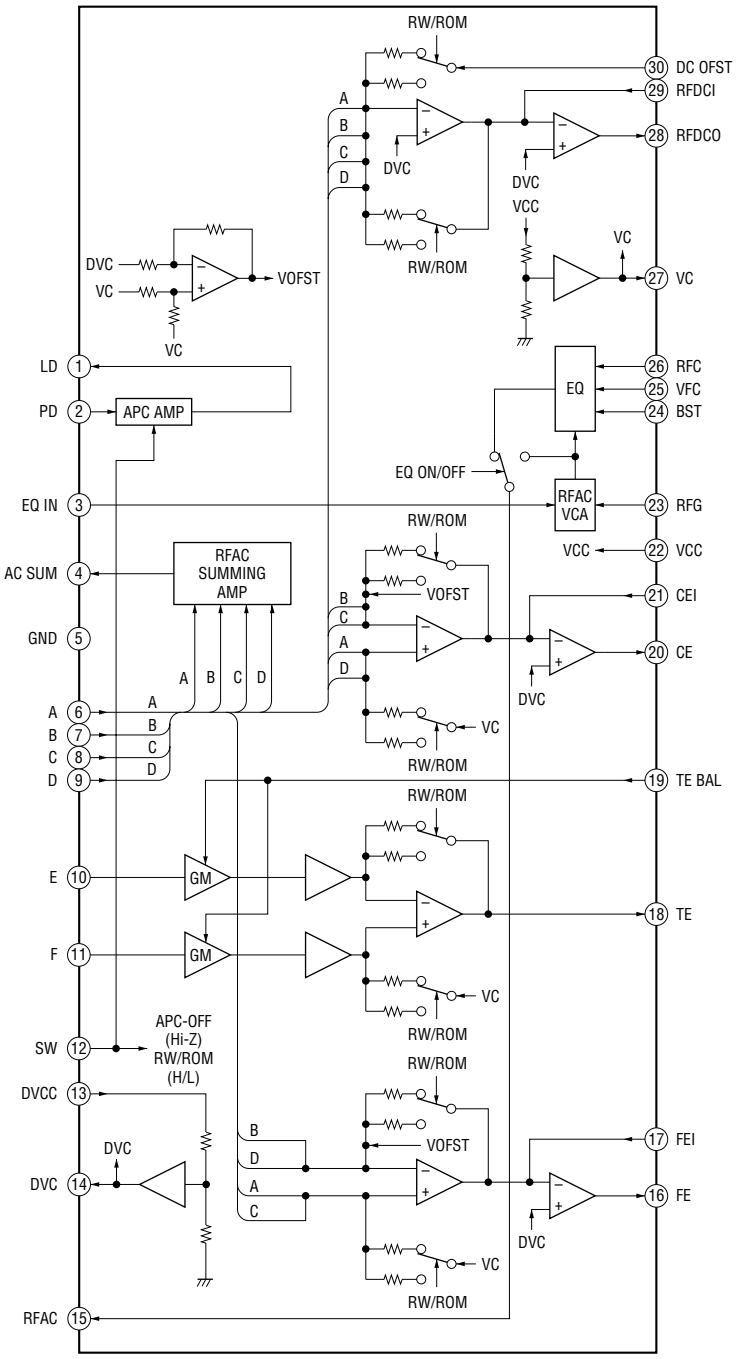
Ref. No.	Location
D901	C-3
D902	B-2
D903	B-3
D904	B-2
D905	B-3
D906	C-12
D908	C-10
Q902	C-11

6-25. SCHEMATIC DIAGRAM — POWER SECTION —

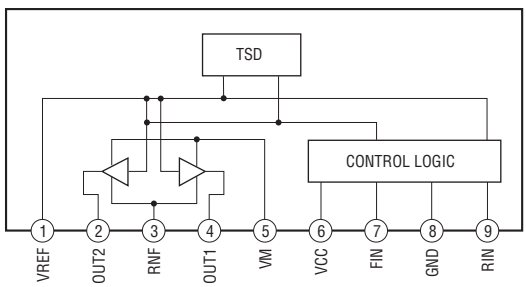


• IC BLOCK DIAGRAMS

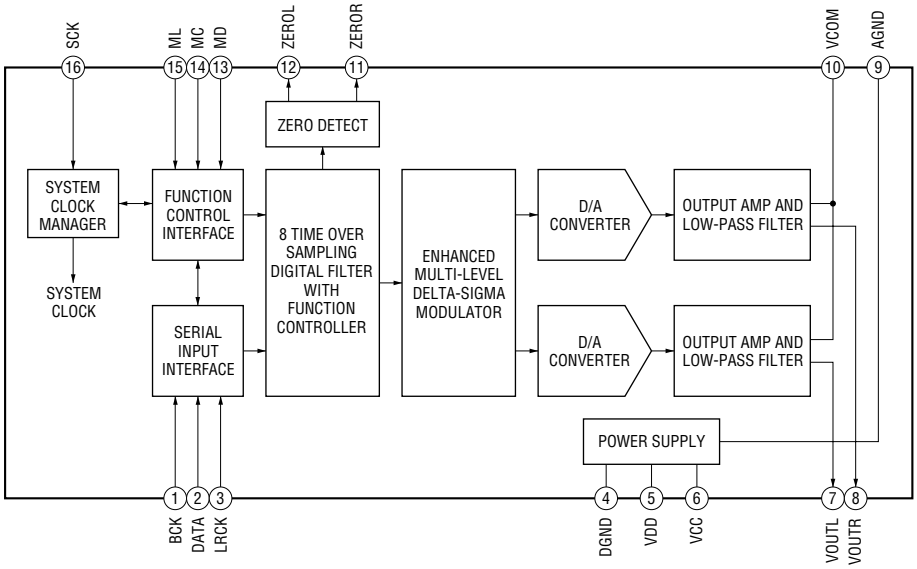
IC103 CXA2581N-T4 (BD49 BOARD)



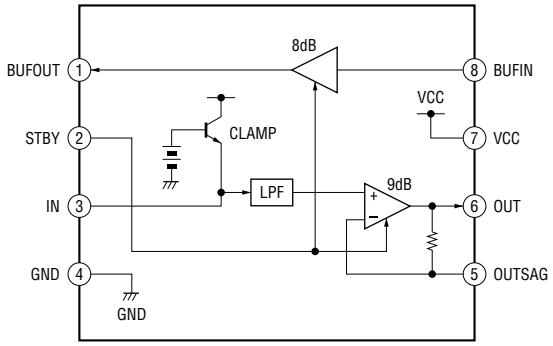
IC701 BA6956AN (DRIVER BOARD)
IC712 BA6956AN (DRIVER BOARD)



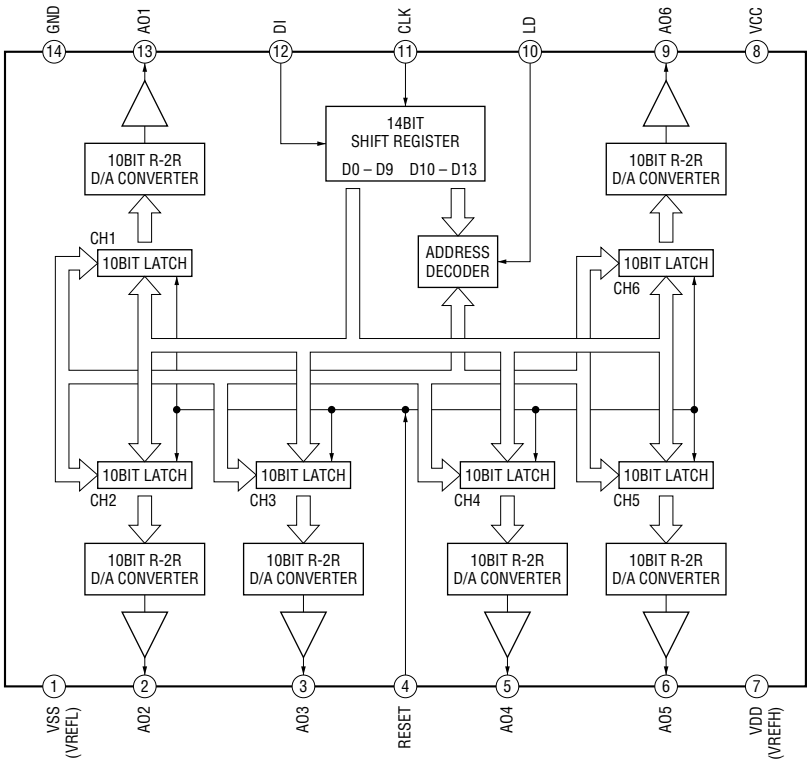
IC504 PCM1748E/2K (VMP43GY BOARD)



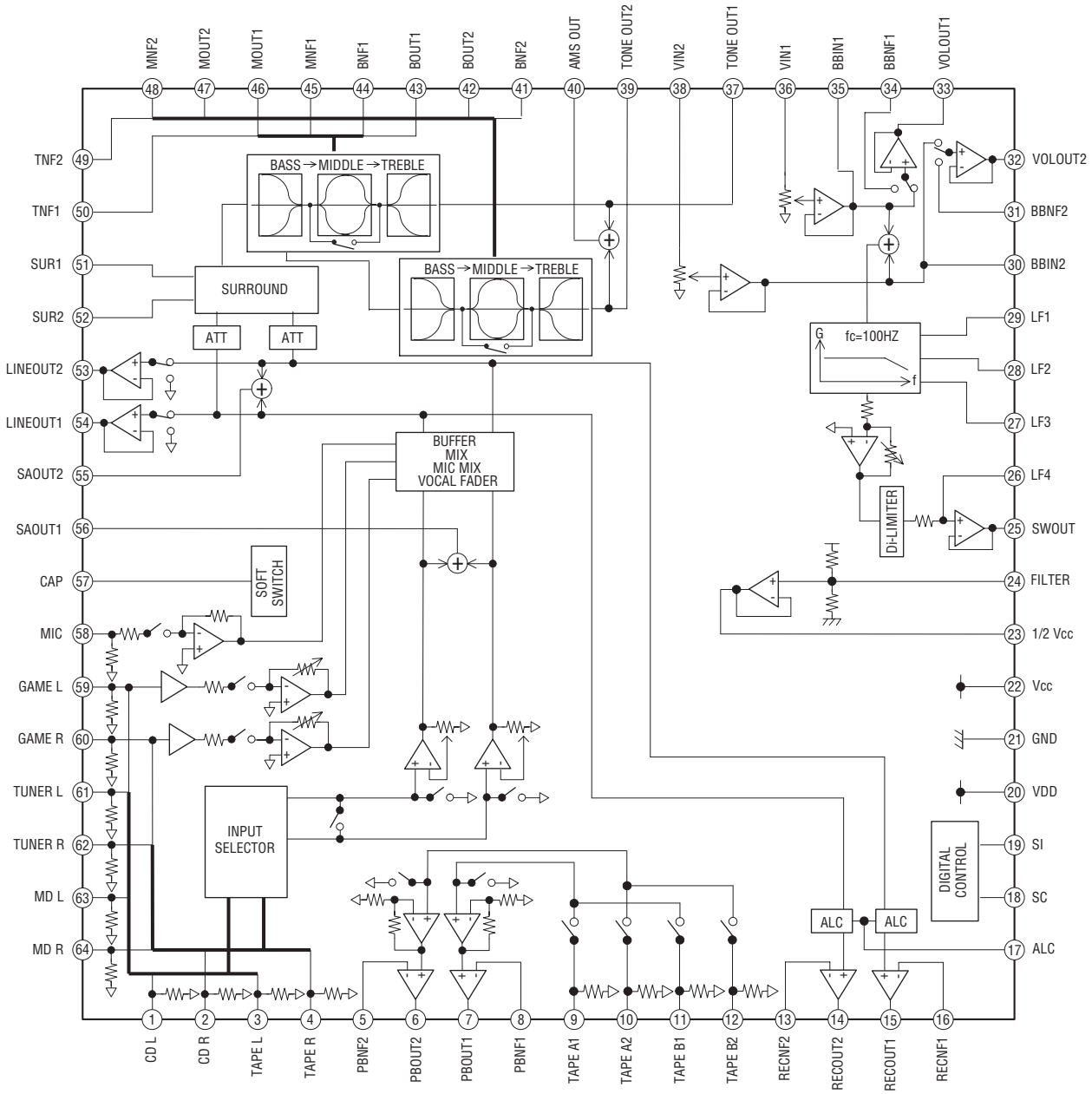
IC307 BD7600FV-E2 (VMP43GY BOARD)



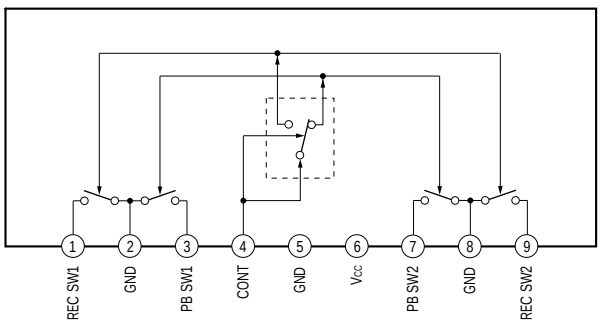
IC506 BU2507FV-E2 (VMP43GY BOARD)



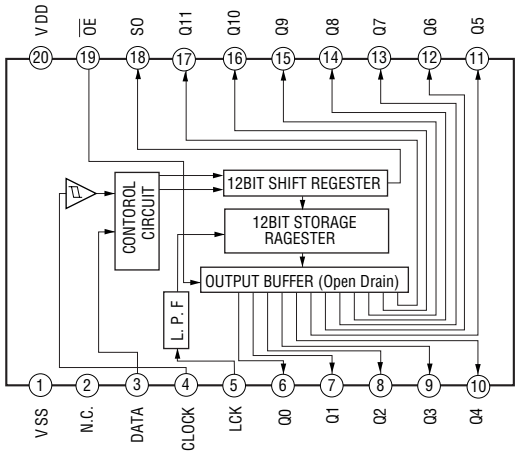
IC101 BD3401KS2 (MAIN BOARD)



IC201 BA3126N (MAIN BOARD)



IC371 BU2099FV (MAIN BOARD)



• IC Pin Function Description

• IC505 CXD1887R (DIGITAL SIGNAL PROCESSOR, DIGITAL SERVO PROCESSOR, MPEG VIDEO/AUDIO DECODER, VIDEO SIGNAL ENCODER) (VMP43GY BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	VB	O	Connected to ground via a capacitor.
2	IREF	O	D/A converter reference current output
3	VRF	I	D/A converter reference voltage input
4	VG	O	Connected to the analog power supply (+2.5 V) via a capacitor.
5	XCPSIG	O	Luminance video composite/component signal invert output Not used. (Fixed at "L".)
6	CPSIG	O	Luminance video composite/component signal output
7, 8	NC	—	Not used. (Pin 7: Open, Pin 8: Fixed at "H".)
9	V AVS2	—	Analog ground pin (for D/A converter)
10	IVD1	—	Power supply pin (+3.3 V) (for I/O)
11	I2C CLK	I/O	Communication data reading clock signal input or transfer clock signal output Not used. (Open)
12	I2C DATA	I/O	Communication data bus pin Not used. (Open)
13	GPIO0	I	Serial data input from the system controller
14	GPIO1	O	Serial data output to the system controller
15	GPIO2	O	Serial data transfer clock signal output to the system controller
16	GIPO3	I	Request signal input from the system controller
17	LVD1	—	Digital power supply pin (+2.5 V) (for AV decoder block)
18	GPIO4	I	Acknowledge signal input from the system controller
19	GPIO5	O	Chip select signal output to the system controller
20, 21	GPIO6, GPIO7	I/O	Not used. (Open)
22	LVS1	—	Digital ground pin (for AV decoder block)
23	GPIO8	I/O	Not used. (Open)
24	GPIO9	O	Frequency selection signal output
25	GPIO10	I/O	Not used. (Open)
26	GPIO11	O	Serial data latch pulse signal output to the digital filter
27	LVD2	—	Digital power supply pin (+2.5 V) (for AV decoder block)
28	GPIO12	O	Control signal output to the D/A converter
29	GPIO13	O	Serial data transfer clock signal output to the digital filter and D/A conveter
30	GPIO14	O	Serial data output to the digital filter and D/A converter
31	IVS1	—	Ground pin (for I/O)
32	LVS2	—	Digital ground pin (for AV decoder block)
33	IVD2	—	Power supply pin (+3.3 V) (for I/O)
34 to 37	DRADR0 to DRADR3	O	Address signal output to the D-RAM and program ROM
38	LVD3	—	Digital power supply pin (+2.5 V) (for AV decoder block)
39 to 45	DRADR4 to DRADR10	O	Address signal output to the D-RAM and program ROM
46	LVS3	—	Digital ground pin (for AV decoder block)
47	IVS2	—	Ground pin (for I/O)
48	IVD3	—	Power supply pin (+3.3 V) (for I/O)
49 to 56	DRDAT0 to DRDAT7	I/O	Two-way data bus with the D-RAM Data input from the program ROM
57	IVS3	—	Ground pin (for I/O)
58	IVD4	—	Power supply pin (+3.3 V) (for I/O)
59 to 66	DRDAT8 to DRDAT15	I/O	Two-way data bus with the D-RAM Data output to the program ROM

Pin No.	Pin Name	I/O	Pin Description
67	IVS4	—	Ground pin (for I/O)
68	$\overline{\text{DRCAS}}$	O	Column address strobe signal output to the D-RAM
69	LVD4	—	Digital power supply pin (+2.5 V) (for AV decoder block)
70	$\overline{\text{DRCK}}$	O	Clock signal output to the D-RAM
71	IVD5	—	Power supply pin (+3.3 V) (for I/O)
72	$\overline{\text{DRRAS}}$	O	Row address strobe signal output to the D-RAM
73	$\overline{\text{DRWEL}}$	O	Write enable signal output to the D-RAM
74	$\overline{\text{NVOEL}}$	O	Chip select signal output to the D-RAM
75	LVS4	—	Digital ground pin (for AV decoder block)
76	DRBS	O	Bank select signal output to the D-RAM
77, 78	DRDQM0, DRDQM1	O	Mask control signal output to the D-RAM
79	IVS5	—	Ground pin (for I/O)
80	NC	—	Not used. (Open)
81	$\overline{\text{SYSRST}}$	I	Reset signal input from the system controller “L”: reset
82	IRDIN	I	IR data input pin Not used. (Open)
83	NC	—	Not used. (Open)
84	VDD1	—	Digital power supply pin (+2.5 V) (for CD-DSP block)
85	V16M	O	Wide-band EFM PLL VCO2 oscillation output Not used. (Open)
86	DOUT	O	Digital audio signal output Not used. (Open)
87	L CDLRCK	I	L/R sampling clock signal (44.1 kHz) input
88	LRCK	O	L/R sampling clock signal (44.1 kHz) output
89	VSS1	—	Digital ground pin
90	L CDDATA	I	Serial data input
91	PCMD	O	Serial data output
92	L CDBCK	I	Bit clock signal (2.8224 MHz) input
93	BCK	O	Bit clock signal (2.8224 MHz) output
94	EMPH	O	“L” is output when playback disc is emphasis off “H” is output when playback disc is emphasis on Not used. (Open)
95	L SQSO	I	Subcode-Q 80-bit, PCM peak and level data, CD text data input
96	SQSO	O	Subcode-Q 80-bit, PCM peak and level data, CD text data output
97	VDD2	—	Digital power supply pin (+2.5 V) (for CD-DSP block)
98	L SQCK	O	SQSO readout clock signal output
99	SQCK	I	SQSO readout clock signal input
100	SBSO	O	Subcode P to W serial data ooutput Not used. (Open)
101	EXCK	I	SBSO readout clock signal input Not used. (Fixed at “L”.)
102	DATA	I	Serial data input
103	L DDAT	O	Serial data output
104	VSS2	—	Digital ground pin
105	L CDXRST	O	Reset signal output “L”: reset
106	XRST	I	Reset signal input “L”: reset
107	MUTE	I	Muting on/off control signal input. “H”: muting on Not used. (Fixed at “L”.)
108	L XLAT	O	Serial data latch pulse signal output
109	XLAT	I	Serial data latch pulse signal input
110	L DCLK	O	Serial data transfer clock signal output
111	CLOK	I	Serial data transfer clock signal input

Pin No.	Pin Name	I/O	Pin Description
112	L SENS	I	SENS signal input
113	SENS	O	SENS signal output
114	L SLCK	O	SENS serial data readout clock signal output
115	SCLK	I	SENS serial data readout clock signal input
116	VDD3	—	Digital power supply pin (+2.5 V) (for CD-DSP block)
117	ATSK	I/O	Input/output for anti-shock Not used. (Fixed at “L”.)
118	XUGF	O	XUGF signal output Not used. (Open)
119	XPCK	O	XPCK signal output Not used. (Open)
120	L GFS	I	Guard frame sync signal input
121	GFS	O	Guard frame sync signal output
122	VSS3	—	Digital ground pin
123	L CDC2PO	I	C2 pointer signal input
124	C2PO	O	C2 pointer signal output
125	L SCOR	I	Subcode sync (S0+S1) detection signal input
126	SCOR	O	Subcode sync (S0+S1) detection signal output
127	COUT	O	Numbers of track counted signal output Not used. (Open)
128	VDD4	—	Digital ground pin (for CD-DSP block)
129	MIRR	I/O	Mirror signal input/output Not used. (Open)
130	DFCT	I/O	Defect signal input/output Not used. (Open)
131	L FOK	I/O	Focus OK signal input/output
132	FOK	I/O	Focus OK signal input/output
133	MDP	O	Spindle motor servo drive signal output
134	VSS4	—	Digital ground pin
135	SSTP	I	Detection signal input from limit in swich The optical pick-up is inner position when “H”
136	FSTO	O	2/3 frequency-division output of the XTAI (pin 149) Not used. (Open)
137	SFDR	O	Sled motor servo drive signal (+) output
138	SRDR	O	Sled motor servo drive signal (–) output
139	VDD5	—	Digital power supply pin (+2.5 V) (for CD-DSP block)
140	TFDR	O	Tracking coil servo drive signal (+) output
141	TRDR	O	Tracking coil servo drive signal (–) output
142	FFDR	O	Focus coil servo drive signal (+) output
143	FRDR	O	Focus coil servo drive signal (–) output
144	VSS5	—	Digital ground pin
145	WFCK	O	Write frame clock signal output Not used. (Open)
146	WDCK	O	Word clock signal output Not used. (Open)
147	ASYE	I	Asymmetry circuit on/off control signal input “L”: off, “H”: on Not used. (Open)
148	VDD6	—	Digital power supply pin (+2.5 V) (for CD-DSP block)
149	XTAI	I	Main system clock input (33.8688 MHz)
150	XTAO	O	Main system clock output (33.8688 MHz)
151	VSS6	—	Digital ground pin
152	TES1	I	Input for the test Normally: fixed at “L”.
153	TEST	I	Input for the test Normally: fixed at “L”.
154, 155	NC	—	Not used. (pin 154: Open, Pin 155: Fixed at “L”.)
156	AVD0	—	Analog power supply pin (+2.5 V)
157	IGEN	I	Operational amplifier constant current input

Pin No.	Pin Name	I/O	Pin Description
158	AVS0	—	Analog ground pin
159	ADIO	O	Output for the test Not used.
160	RFDC	I	RF signal input from the RF amplifier
161	CE	I	Center servo analog signal input
162	TE	I	Tracking error signal input from the RF amplifier
163	SE	I	Sled error signal input from the RF amplifier
164	FE	I	Focus error signal input from the RF amplifier
165	VC	I	Center voltage (+1.65 V) input
166	VPCO	O	Wide-band EFM PLL charge pump output
167	VCTL	I	Wide-band EFM PLL VCO2 control voltage input
168	FILO	O	Master PLL filter output
169	FILI	I	Master PLL filter input
170	PCO	O	Master PLL charge pump output
171	CLTV	I	Multiplier VCO1 control voltage input
172	AVS1	—	Analog ground pin
173	RFAC	I	EFM signal input from the RF amplifier
174	BIAS	I	Asymmetry circuit constant current input
175	ASYI	I	Asymmetry comparator voltage input
176	ASYO	O	EFM full-swing output
177	AVD1	—	Analog power supply pin (2.5 V)
178	VDD7	—	Digital power supply pin (+2.5 V) (for CD-DSP block)
179	SOUT	O	Serial data output Not used. (Open)
180	SOCK	O	Serial data readout clock signal output Not used. (Open)
181	XOLT	O	Serial data latch pulse signal output Not used. (Open)
182	C4M	O	4.2336 MHz clock signal output Not used. (Open)
183	LOCK	O	GFS is sampled by 460 Hz “H” output when GFS is “H”
184	VSS7	—	Digital ground pin
185	MD2	I	Digital out on/off control signal input “L”: digital out off, “H”: digital out on Not used. (Fixed at “L”.)
186	SCSY	I	Guard subcode sync (S0+S1) resynchronization input Not used. (Fixed at “L”.)
187	PWMI	I	Spindle motor external control signal input Not used. (Fixed at “L”.)
188	VDD8	—	Digital power supply pin (+2.5 V) (for CD-DSP block)
189	XTSL	I	Input for the system clock frequency setting “L”: 16.9344 MHz, “H”: 33.8688 MHz Fixed at “H” in this set
190	VSS8	—	Digital ground pin
191	PVS2	—	Analog ground pin (for PLL2)
192	LPFI	I	Connected of PLL2 filter
193	LPFO	O	Connected of PLL2 filter
194	PVD2	—	Analog power supply pin (+2.5 V) (for PLL2)
195, 196	NC	—	Not used. (Open)
197	PVD1	—	Analog power supply pin (+2.5 V) (for PLL1)
198	PVS1	—	Analog ground pin (for PLL1)
199	TMODE0	I	Selection signal input for the test Not used. (Fixed at “L”.)
200	AUDDTI	I	Serial audio data input Not used. (Fixd at “L”.)
201	AUDDTO0	O	Serial audio data output to the digital filter

Pin No.	Pin Name	I/O	Pin Description
202	AUDDTO1	O	Serial audio data output Not used. (Open)
203	AUDBCK	O	Serial audio bit clock signal (2.8224 MHz) output to the digital filter
204	AUDLRCK	O	Serial audio L/R sampling clock signal (44.1 kHz) output to the digital filter
205	AUDXCLKO	O	Serial audio clock signal output to the digital filter
206	CLKA	I	Sub system clock input (27 MHz)
207	CLKB	O	Sub system clock output (27 MHz)
208	VDD9	—	Digital power supply pin (+2.5 V) (for CD-DSP block)
209	THRCLK	I	Clock signal input for the test Not used. (Open)
210	TESTEN	I	Setting pin for the test Normally : fixed at “L”
211	TCLK	I	Clock signal input for the test Not used. (Fixd at “L”)
212	TMODE1	I	Selection signal input for the test Not used. (Fixd at “L”)
213	TRST	I	Reset signal input for the test Not sused. (Open)
214	VSS9	—	Digital ground pin
215	NC	—	Not used. (Fixd at “L”.)
216	V AVD1	—	Analog power supply pin (+2.5 V) (for D/A converter)

• IC371 BU2099FV (SP DRIVER) (MAIN BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	VSS	—	Ground pin
2	N.C.	—	Not used. (Open)
3	DATA	I	Serial data input from the motor/plunger driver
4	CLOCK	I	Serial data transfer clock signal input from the system controller
5	LCH	I	Latch pulse signal input from the system controller
6	Q0	O	Recording/playback selection signal output
7	Q1	O	Recording bias control signal output
8, 9	Q2, Q3	O	Not used. (Fixed at “L” in this set.)
10	Q4	O	CD muting on/off control signal output
11	Q5	O	Tuner muting on/off control signal output
12	Q6	O	Power amplifier on/off control signal output
13	Q7	O	Loading motor drive signal output
14	Q8	O	Loading motor drive signal output
15	Q9	O	Table motor drive signal output
16	Q10	O	Table motor drive signal output
17	Q11	O	Front speaker on/off relay drive control signal output
18	SO	O	Serial data output Not used (Connect to ground in this set.)
19	OE	—	Not used. (Open)
20	VDD	—	Power supply pin (+3.3 V)

• IC601 LC876964C-52S6-E (SYSTEM CONTROLLER) (PANEL BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	O-MP3 CS	O	CS signal output to CD digital processor
2	O-MP3 LP	O	LP signal output to CD digital processor and motor signal output
3	I-MP3 ACK	I	ACK signal input from CD digital processsor and motor signal input
4	O-MP3 REQ	O	REQ signal output to CD digital processor and motor signal output
5	I-SCOR	I	CD scor signal input
6	$\overline{\text{O-MP3 RESET}}$	O	RESET signal output to CD digital processor
7	I-BU1924 DATA	I	Data signal input
8	I-BU1924 CLK	I	Clock signal input
9	I-VOLUME-IN1	I	Volume signal input from the encoder
10	I-VOLUME-IN2	I	Volume signal input from the encoder
11	$\overline{\text{RESET}}$	I	Reset signal input
12	I-XT1	I	Connection for input a crystal resonator (32.768 kHz)
13	I-XT2	O	Connection for input a crystal resonator (32.768 kHz)
14	VSS1	—	Ground pin
15	CF1	I	Connection for input a ceramic resonator (10 MHz)
16	CF2	O	Connection for input a ceramic resonator (10 MHz)
17	VDD1	—	Power supply pin (+1.5 V)
18	$\overline{\text{I-PROTECT}}$	I	Power amplifier circuit protection signal input
19	WFR/HP/MIC-IN	I	Subwoofer or Headphone detection signal input
20	I-CD ENCODER	I	Signal input from the CD encoder
21	I-CD OPEN/CLOSE	I	CD tray open switch signal input
22	I-TAPE A START	I	TAPE A switches signal input
23	I-TAPE B START	I	TAPE B switches signal input
24	I-STREAM/VACS	I	Stream/Vacs signal input
25	I-KEY 3	I	Function key input 3
26	I-KEY 2	I	Function key input 2
27	I-KEY 1	I	Function key input 1
28	$\overline{\text{I-SIRDS-IN}}$	I	Data signal input from the remote control receiver
29	I-AC CUT	I	Power down signal input
30 to 42	G13 to G1	O	FL tube grid signal output
43 to 45	S1 to S3	O	FL tube segment signal output
46	VDD3	—	Power supply pin (+3.3 V)
47 to 49	S4 to S6	O	FL tube segment signal output
50	S7/METER-SW1	O	FL tube segment signal output
51	–VPP	—	Power supply (–) pin (–26 V)
52	S8/METER-SW2	O	FL tube segment signal output
53	S9/METER-SW3	O	FL tube segment signal output
54 to 63	S10/SW1 to S19/SW10	O	FL tube segment signal output
64, 65	S20, S21	O	FL tube segment signal output
66	I-SPEC/MODEL/METER	I	METER switch signal input
67	I-TUNED-IN	I	Tuning frequency signal input
68	I-STEREO-IN	I	Stereo tuning signal input
69	I-AMS-IN	I	AMS signal input
70	I-REEL-A-IN	I	A deck photo sensor signal input
71	I-REEL-B-IN	I	B deck photo sensor signal input
72	VDD4	—	Power supply pin (+3.3 V)
73	I-CD NUM SENSOR	I	Table address sensor switch signal input
74	O-POWER-RELAY	O	POWER RELAY control signal output
75	O-SYSTEM-MUTE	O	System muting signal output
76	O-POWER-LED	O	POWER LED control signal output
77	STREAM-LED6	O	Illumination LED control signal output
78	STREAM-LED5	O	Illumination LED control signal output

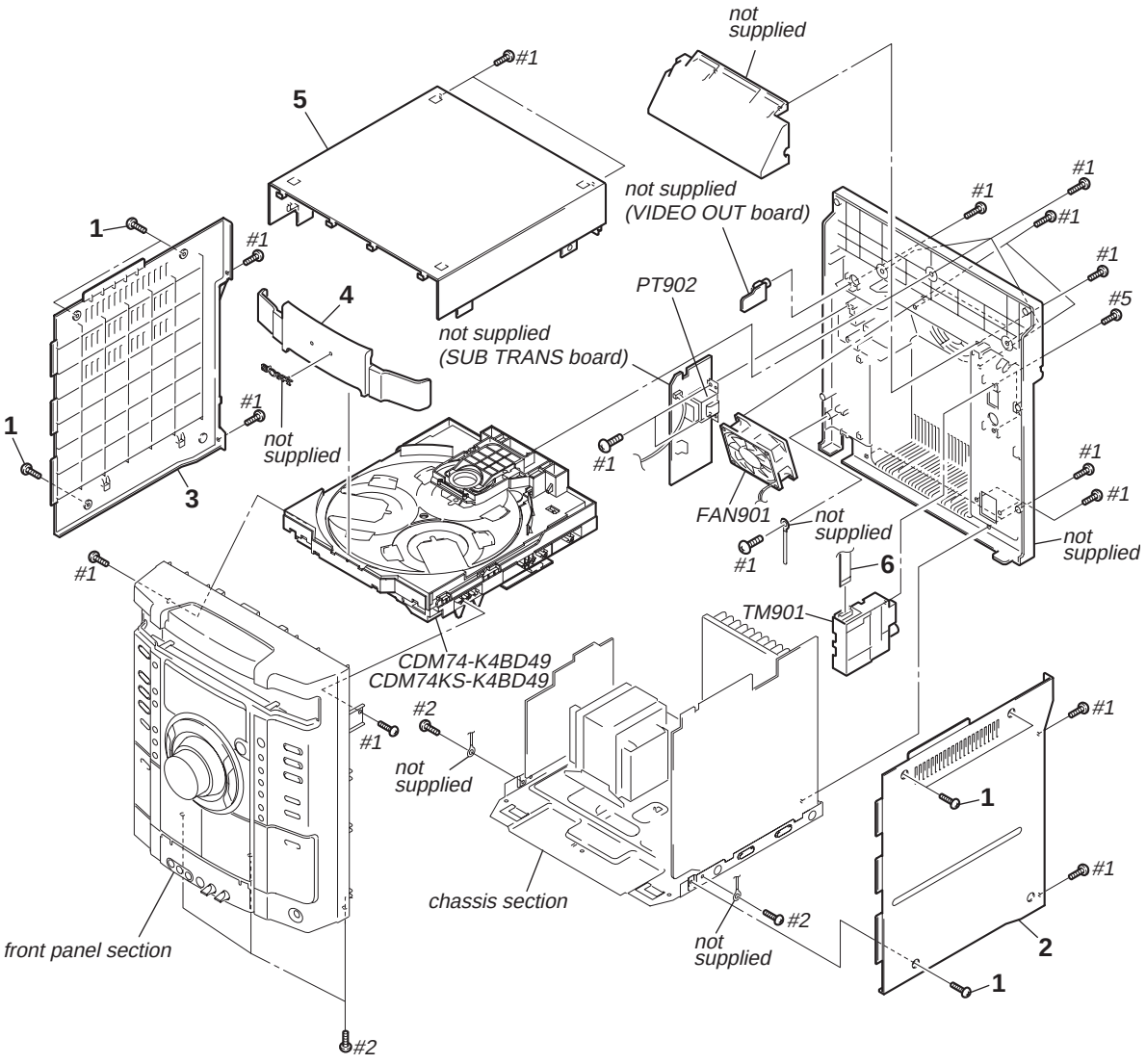
Pin No.	Pin Name	I/O	Pin Description
79	STREAM-LED4	O	Illumination LED control signal output
80	STREAM-LED3	O	Illumination LED control signal output
81	STREAM-LED2	O	Illumination LED control signal output
82	STREAM-LED1	O	Illumination LED control signal output
83	I-LC72121 DI	I	Data signal input from tuner
84	O-LC72121 CE	O	Chip select signal output to tuner
85	O-LC72121/BU2099FV DO	O	Data signal input from tuner and SP driver
86	O-LC72121/BU2099FV CLK	O	Clock signal output to tuner and SP driver
87	O-BU2099FV LCH	O	Latch pulse signal output to SP driver
88	O-BD3401 CLK	O	Clock signal output to sound processor
89	VSS2	—	Ground pin
90	VDD2	—	Power supply pin (+3.5 V)
91	O-BD3401 DATA	O	Data signal output to sound processor
92	O-XTCN	O	CD XTCN signal output
93	$\overline{\text{O-XRES (RESET)}}$	O	CD reset signal output
94	O-XLT (CD-LAT)	O	CD latch signal output
95	O-CD-DATA	O	CD data signal output
96	I-SENS	I	CD SENS signal input
97	O-CD-CLK	O	CD clock signal output
98	O-MP3-DO	O	MP3 data signal output to CD digital processsor
99	I-MP3-DI	I	MP3 data signal input from CD digital processsor
100	O-MP3-CLK	O	MP3 clock signal output to CD digital processsor

SECTION 7
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Accessories are given in the last of this parts list.
- Abbreviation
  E3 : 240 V AC area in E model
  E12 : 220 – 240 V AC area in E model
  E15 : Iran model
  SP : Singapore model
  TH : Thai model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

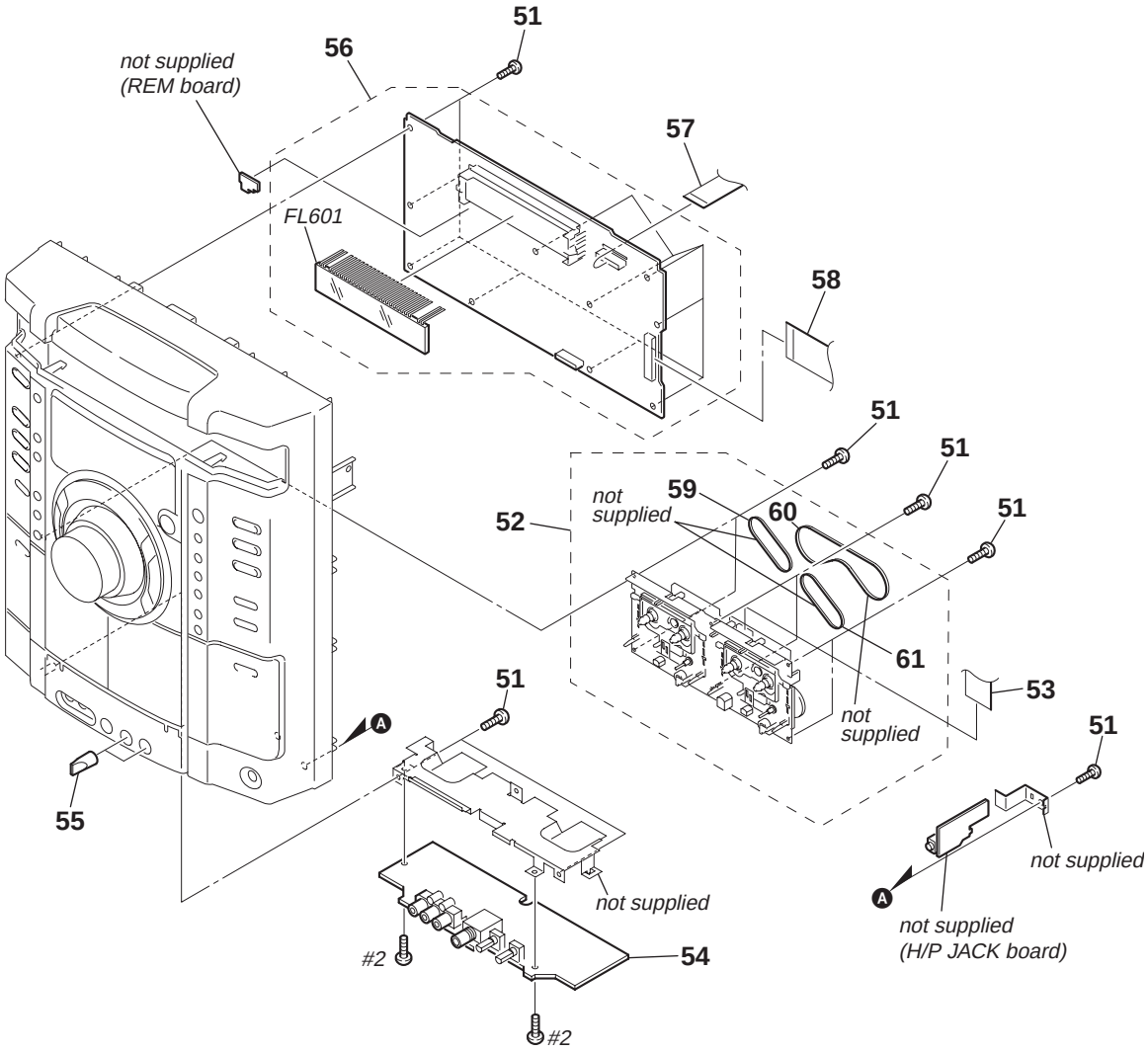
7-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	3-363-099-32	SCREW (CASE 3 TP2)	
2	4-245-184-71	CASE (SIDE-R)	
3	4-245-183-71	CASE (SIDE-L)	
4	4-253-803-61	DOOR, CD (TH)	
4	4-253-803-71	DOOR, CD (EXCEPT TH)	
5	4-244-849-71	CASE (TOP)	
6	1-769-940-11	WIRE (FLAT TYPE) (11 CORE)	
7	3-038-018-01	EMBLEM, SONY (EXCEPT TH)	
7	4-998-417-02	EMBLEM (NO.5), SONY (TH)	

Ref. No.	Part No.	Description	Remark
FAN901	1-763-072-11	FAN, DC	
⚠PT902	X-4956-294-1	TRANS ASSY, SUB	
TM901	1-693-603-31	TUNER (FM/AM) (ANTENNA)	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#5	7-685-871-01	SCREW +BVTT 3X6 (S)	

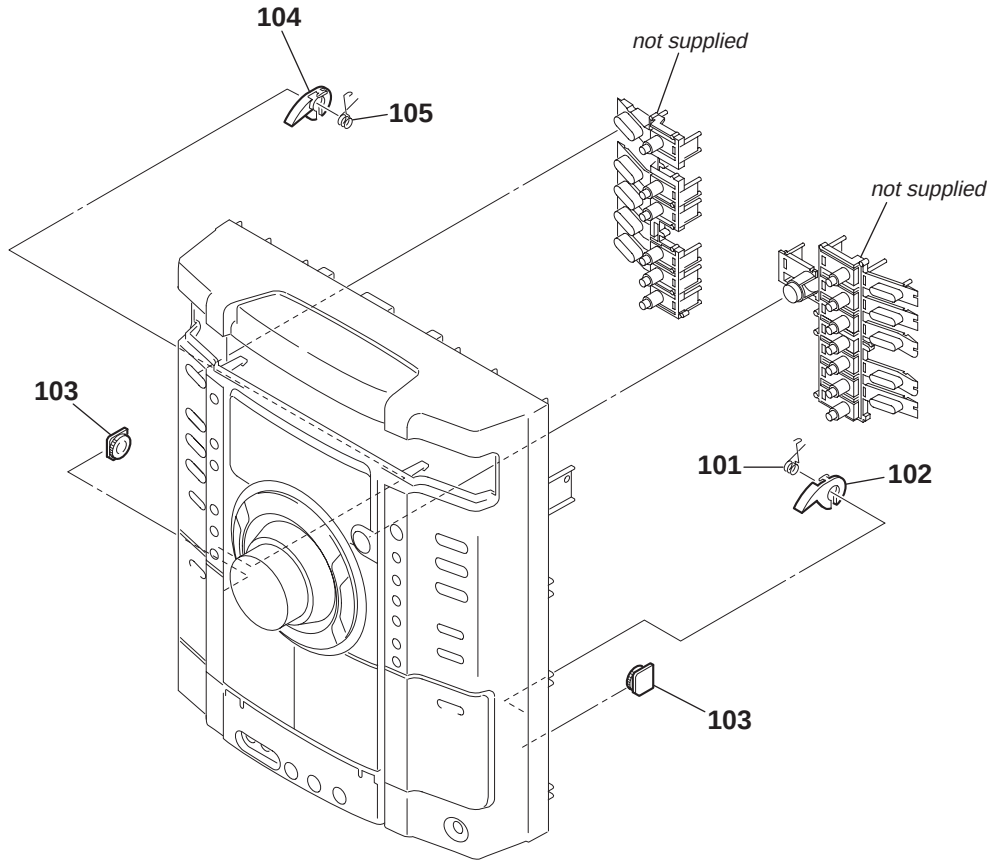
7-2. FRONT PANEL SECTION (1)



Ref. No.	Part No.	Description	Remark
51	3-087-053-01	+BVTP 2.6 (3CR)	
52	1-796-485-41	DECK, MECHANICAL (TH)	
52	1-796-485-51	DECK, MECHANICAL (EXCEPT TH)	
53	1-769-975-11	WIRE (FLAT TYPE) (13 CORE)	
54	A-1112-192-A	MIC BOARD, COMPLETE (EXCEPT TH)	
54	A-4752-301-A	MIC BOARD, COMPLETE (TH)	
55	4-238-628-03	KNOB, MIC	
56	A-1112-417-A	PANEL BOARD, COMPLETE (EXCEPT TH)	
56	A-4752-354-A	PANEL BOARD, COMPLETE (TH)	

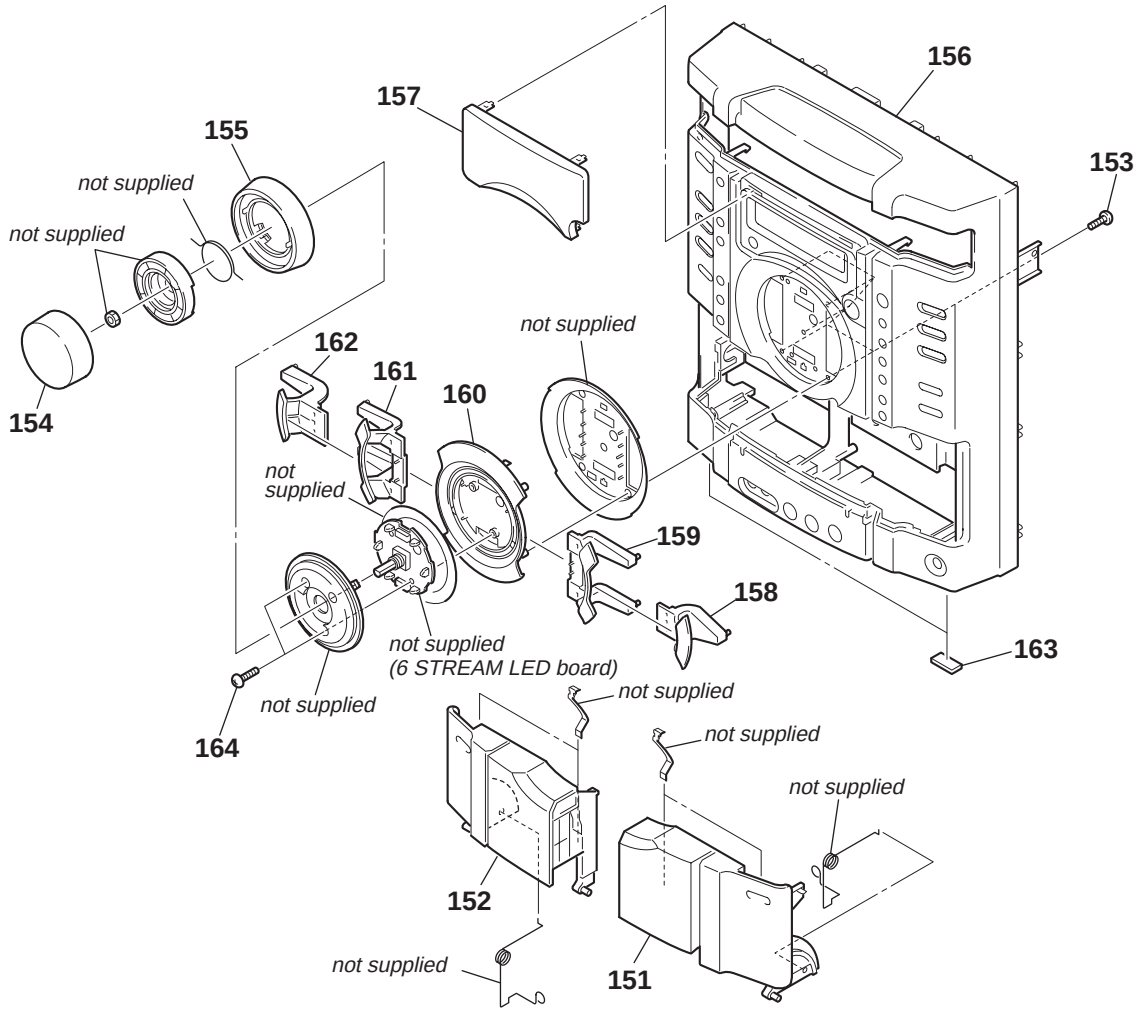
Ref. No.	Part No.	Description	Remark
57	1-765-325-11	WIRE (FLAT TYPE) (11 CORE)	
58	1-773-282-11	WIRE (FLAT TYPE) (29 CORE)	
59	4-243-609-01	BELT (AF)	
60	4-235-777-01	BELT (FR)	
61	2-657-155-01	BELT (BR)	
FL601	1-518-976-11	INDICATOR TUBE, FLUORESCENT	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

7-3. FRONT PANEL SECTION (2)



Ref. No.	Part No.	Description	Remark
101	4-231-841-01	SPRING (HEART CAM-B)	
102	4-231-825-01	CAM (B), HEART	
103	4-224-104-11	DAMPER	
104	4-231-824-01	CAM (A), HEART	
105	4-231-836-01	SPRING (HEART CAM-A)	

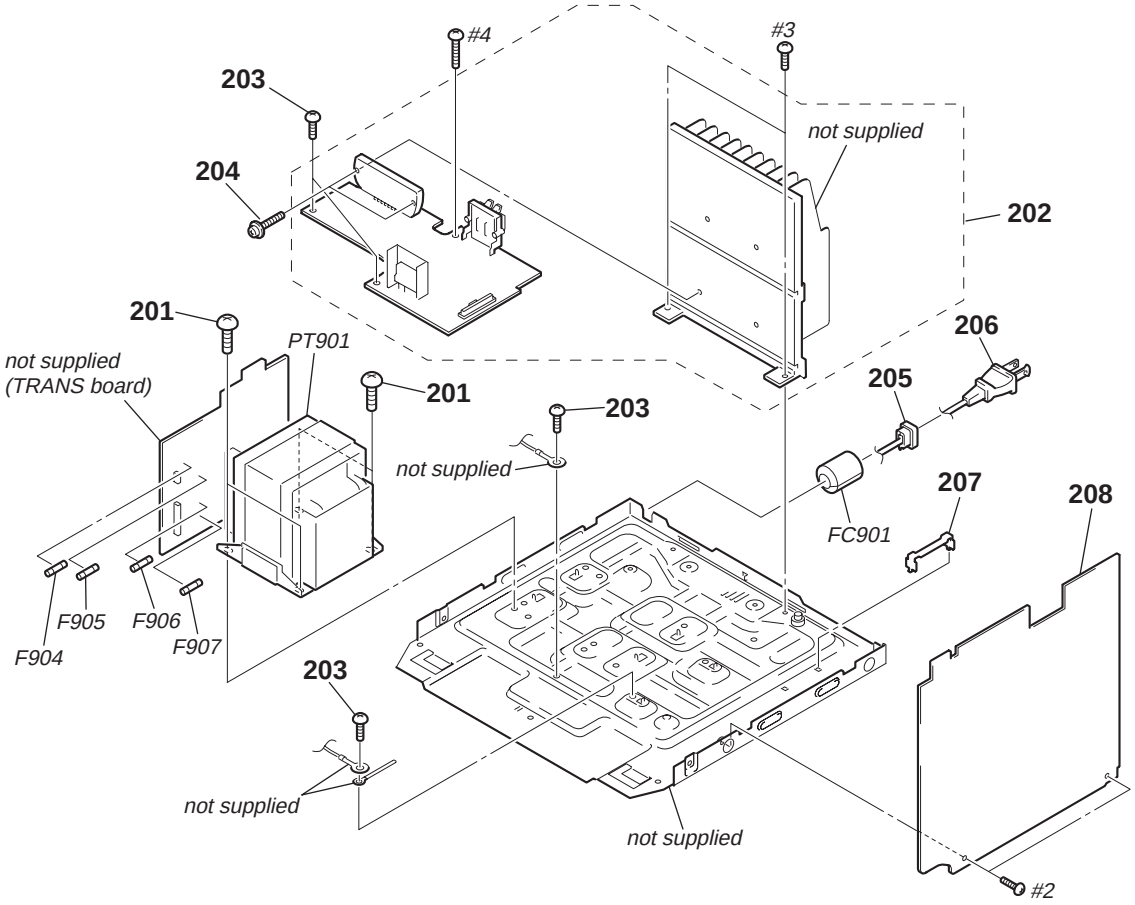
7-4. FRONT PANEL SECTION (3)



Ref. No.	Part No.	Description	Remark
151	4-252-202-21	DOOR (B), CASS	
152	4-252-201-21	DOOR (A), CASS	
153	3-087-053-01	+BVTP 2.6 (3CR)	
154	4-252-214-01	KNOB, VOLUME	
155	X-4956-295-1	RING ASSY, KNOB	
156	4-253-804-61	PANEL, FRONT	
157	4-252-198-01	WINDOW, DISPLAY	

Ref. No.	Part No.	Description	Remark
158	4-252-205-31	BUTTON, PLAY	
159	4-252-207-31	BUTTON, FF	
160	4-252-200-21	COVER, BUTTON	
161	4-252-208-31	BUTTON, FR	
162	4-252-206-21	BUTTON, STOP	
163	4-225-252-01	CUSHION (FOOT)	
164	3-087-053-11	+BVTP 2.6 (3CR)	

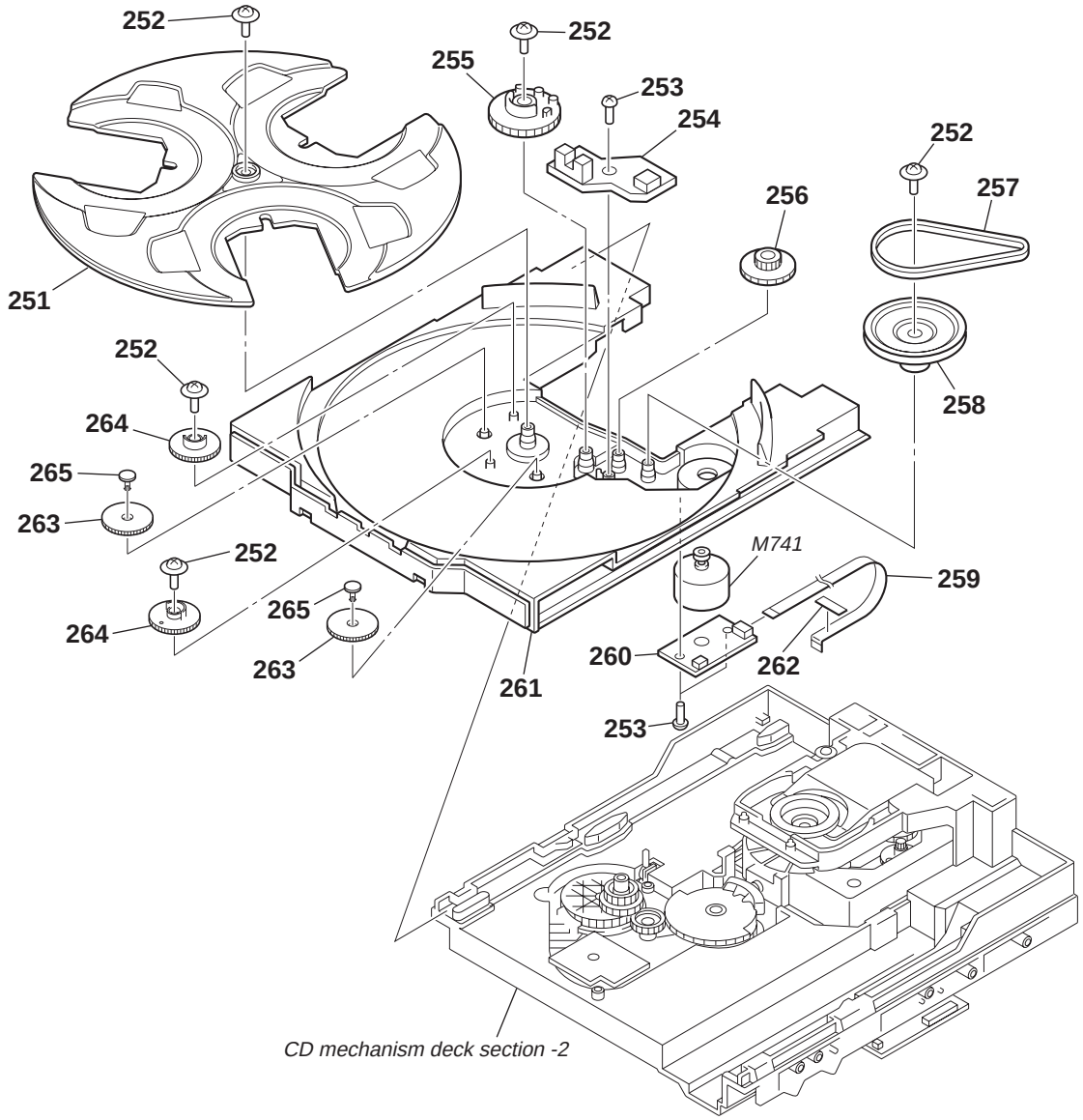
7-5. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
201	4-900-386-01	SCREW	
202	A-1112-422-A	AMP BOARD, COMPLETE (EXCEPT TH)	
202	A-4752-359-A	AMP BOARD, COMPLETE (TH)	
203	3-077-331-01	+BV 3 (3-CR)	
204	3-905-609-41	SCREW (TRANSISTOR)	
* 205	3-703-244-00	BUSHING (2104), CORD (E12,SP,TH)	
* 205	3-703-571-12	BUSHING (S) (4516), CORD (E3,E15)	
⚠206	1-777-071-83	CORD, POWER (E12,SP)	
⚠206	1-824-818-21	CORD, POWER (WITH CONNECTOR) (TH)	
⚠206	1-829-627-11	CORD, POWER (E3,E15)	
207	4-988-533-01	HOLDER, PWB (EXCEPT TH)	
* 207	4-988-533-12	HOLDER, PWB (TH)	

Ref. No.	Part No.	Description	Remark
208	A-1112-419-A	MAIN BOARD, COMPLETE (EXCEPT TH)	
208	A-4752-356-A	MAIN BOARD, COMPLETE (TH)	
⚠F904	1-533-949-33	FUSE, CYLINDRICAL (TIME LUG) (T8AL/250V)	
⚠F905	1-533-949-33	FUSE, CYLINDRICAL (TIME LUG) (T8AL/250V)	
⚠F906	1-532-465-33	FUSE (3.15A/250V)	
⚠F907	1-532-465-33	FUSE (3.15A/250V)	
FC901	1-500-386-31	FILTER, CLAMP (FERRITE CORE)	
⚠PT901	1-443-237-21	TRANSFORMER, POWER	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#3	7-685-881-09	SCREW +BVTT 4X8 (S)	
#4	7-685-649-79	SCREW +BVTP 3X14 TYPE2 IT-3	

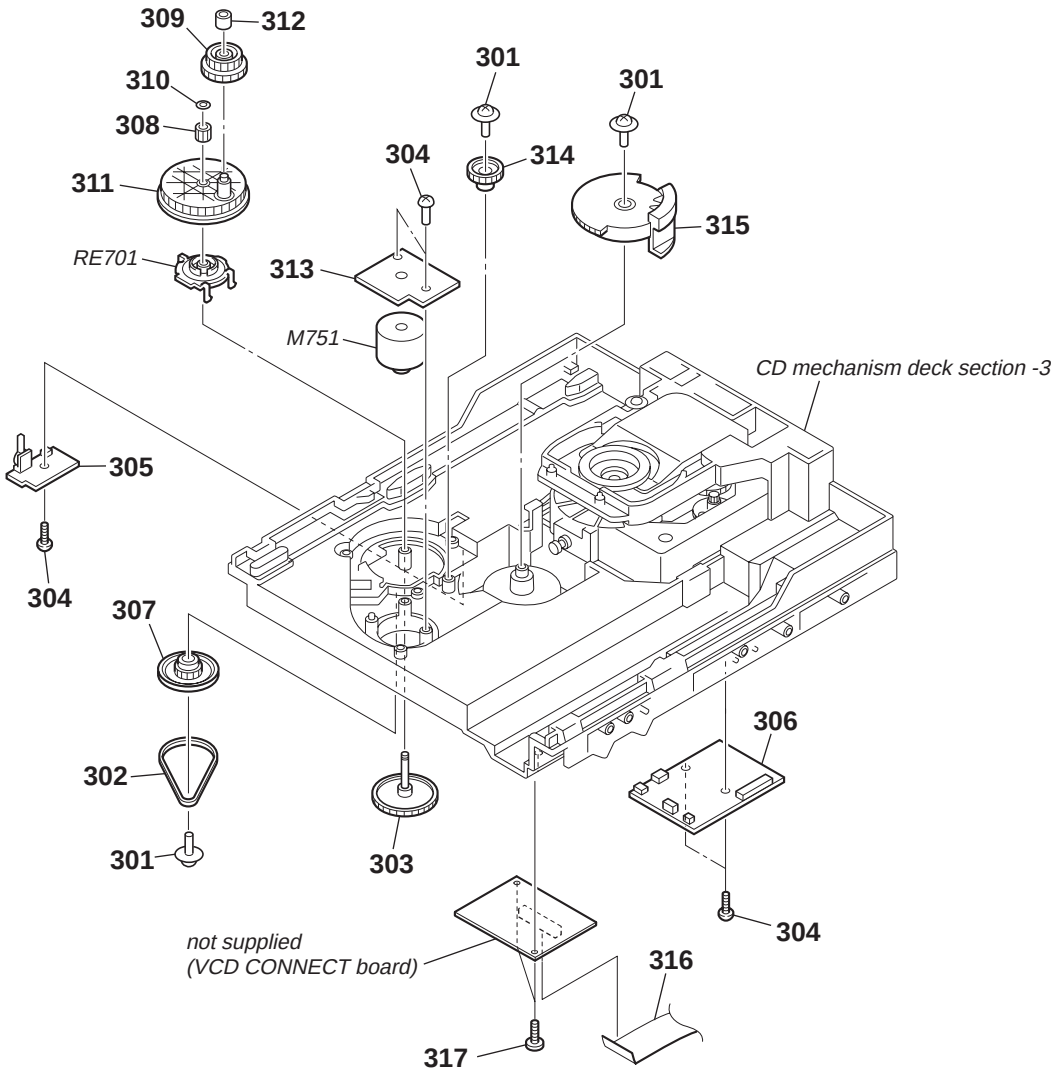
7-6. CD MECHANISM DECK SECTION (1)
(CDM74-K4BD49: TH)
(CDM74KS-K4BD49: EXCEPT TH)



Ref. No.	Part No.	Description	Remark
251	4-243-816-11	TRAY	
252	4-218-252-52	SCREW (+PTPWH M2.6), FLOATING	
253	4-218-253-52	SCREW (M2.6), +BTTP	
254	1-687-132-12	SENSOR BOARD	
255	4-243-819-01	GEAR (GENEVA)	
256	4-243-820-01	GEAR (TABLE)	
257	4-243-823-01	BELT (TABLE)	
258	4-243-821-01	PULLEY (TABLE)	

Ref. No.	Part No.	Description	Remark
259	1-828-938-51	WIRE (FLAT TYPE) (5 CORE)	
260	1-687-134-12	MOTOR (TB) BOARD	
261	4-243-815-11	TABLE (LOADING)	
262	3-231-598-01	SHEET (BA)	
263	4-245-570-01	GEAR (JOINT)	
264	4-245-571-02	GEAR (STOPPER)	
265	4-245-572-01	BUSHING (GEAR)	
M741	A-1108-965-A	MOTOR ASSY, TABLE (TABLE)	

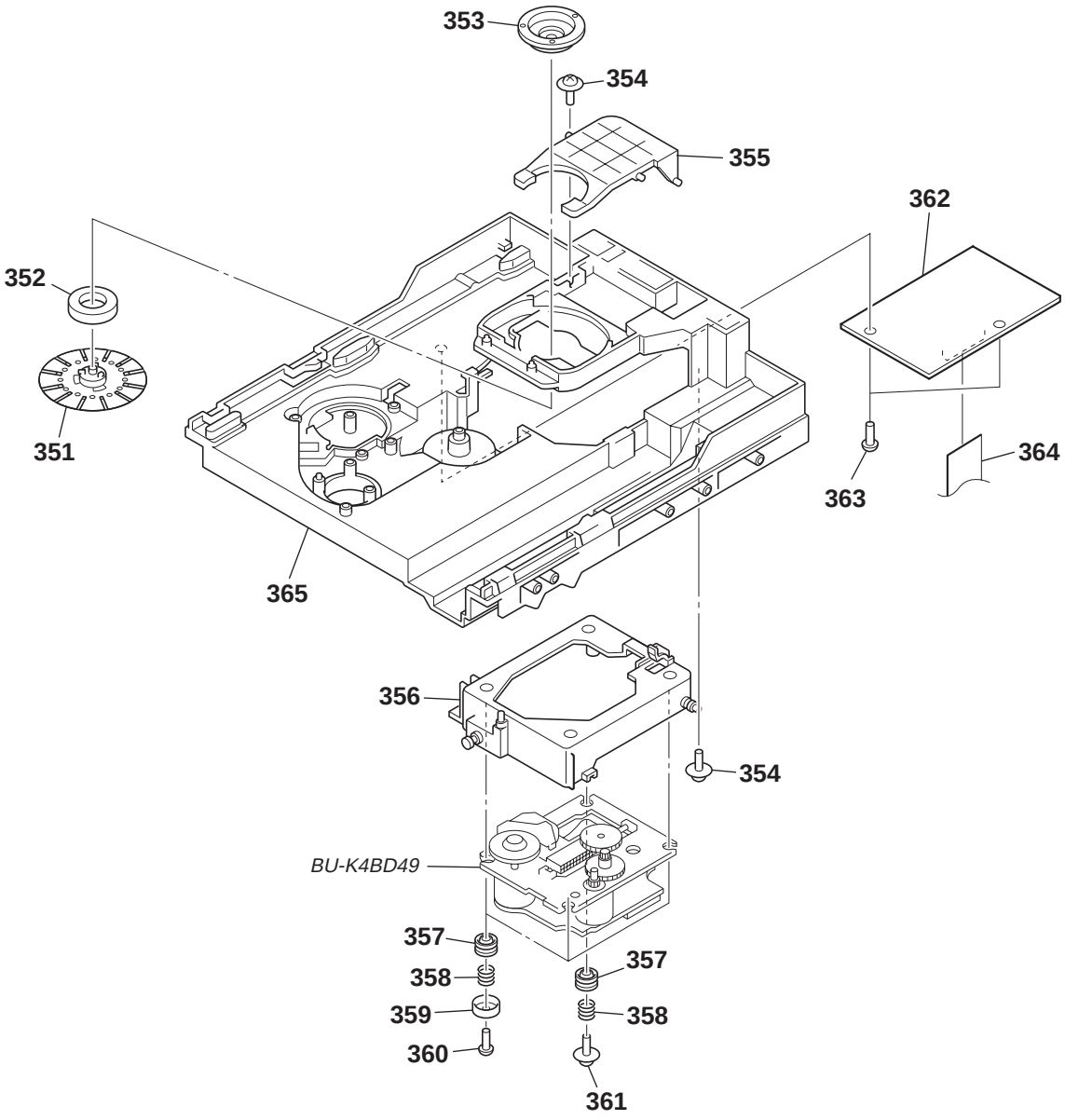
7-7. CD MECHANISM DECK SECTION (2)
(CDM74-K4BD49: TH)
(CDM74KS-K4BD49: EXCEPT TH)



Ref. No.	Part No.	Description	Remark
301	4-218-252-52	SCREW (+PTPWH M2.6), FLOATING	
302	4-244-034-01	BELT (LOADING)	
303	4-224-613-01	GEAR (SHAFT) (TH)	
303	4-224-613-11	GEAR (SHAFT) (EXCEPT TH)	
304	4-218-253-52	SCREW (M2.6), +BTTP	
305	1-687-669-12	SW BOARD	
306	1-687-135-12	DRIVER BOARD	
307	4-225-844-01	GEAR (LOADING A)	
308	4-224-611-01	GEAR (LOADING B)	
309	4-224-609-01	GEAR (LOADING C)	
310	3-016-533-11	WASHER (FR), STOPPER	

Ref. No.	Part No.	Description	Remark
311	4-244-108-01	GEAR, SWING	
312	4-224-608-01	COLLAR, SWING	
313	1-687-133-12	MOTOR (LD) BOARD	
314	4-224-606-01	GEAR (RV)	
315	4-243-818-01	GEAR (U/D)	
316	1-773-122-11	WIRE (FLAT TYPE) (19 CORE)	
317	4-951-620-01	SCREW (2.6X8), +BVTP	
M751	A-1108-966-A	MOTOR ASSY, LOADING (LOADING) (EXCEPT TH)	
M751	A-4737-553-A	MOTOR ASSY, LOADING (LOADING) (TH)	
RE701	1-477-680-12	ENCODER, ROTARY	

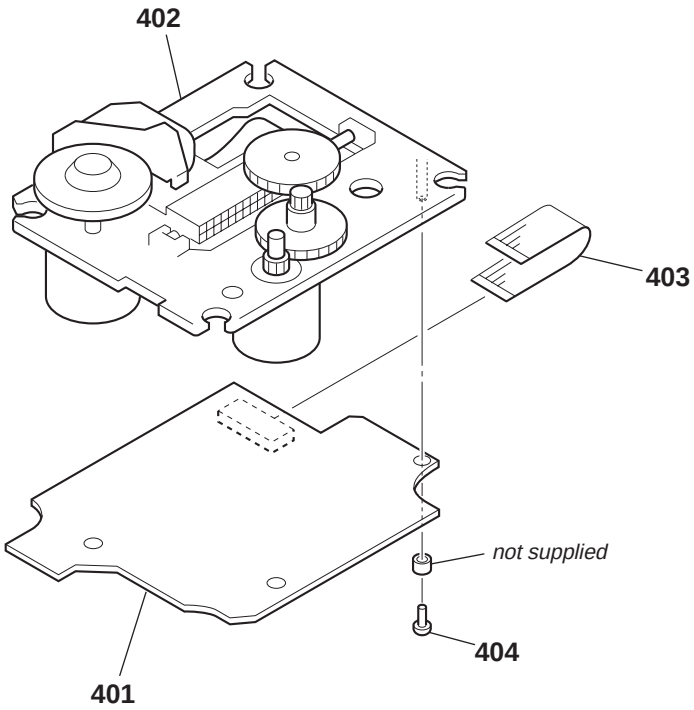
7-8. CD MECHANISM DECK SECTION (3)
(CDM74-K4BD49: TH)
(CDM74KS-K4BD49: EXCEPT TH)



Ref. No.	Part No.	Description	Remark
351	X-2102-809-1	PULLEY (KH) ASSY (EXCEPT TH)	
351	X-4955-791-1	PULLEY (SI) ASSY, CHUCKING (TH)	
352	1-471-035-11	MAGNET ASSY (TH)	
352	1-471-035-21	MAGNET ASSY (EXCEPT TH)	
353	4-221-688-01	PULLEY (B), CHUCKING (TH)	
353	4-231-189-01	PULLEY (B), CHUCKING (EXCEPT TH)	
354	4-218-252-52	SCREW (+PTPWH M2.6), FLOATING	
355	4-243-822-02	LEVER (LIFTER)	
356	X-2055-190-1	HOLDER (213) ASSY (EXCEPT TH)	
356	X-2055-190-1	HOLDER (213) ASSY (TH)	
357	4-227-549-11	INSULATOR	

Ref. No.	Part No.	Description	Remark
358	4-227-045-11	SPRING (INSULATOR), COIL (TH)	
358	4-227-045-31	SPRING (INSULATOR), COIL (EXCEPT TH)	
359	4-231-151-01	STOPPER (BU)	
360	4-218-253-32	SCREW (M2.6), +BTTP	
361	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
362	A-1112-636-A	VMP43GY BOARD, COMPLETE (EXCEPT TH)	
362	A-4752-391-A	VMP43GY BOARD, COMPLETE (TH)	
363	3-087-053-01	+BVTP 2.6 (3CR)	
364	1-775-265-11	WIRE (FLAT TYPE) (29 CORE)	
365	4-243-817-22	CHASSIS	

7-9. BASE UNIT SECTION (BU-K4BD49)



Ref. No.	Part No.	Description	Remark
401	A-4750-371-A	BD49 BOARD, COMPLETE	
⚠402	8-820-122-01	OPTICAL PICK-UP (KSM213DHAP/Z-NP)	
403	1-782-817-11	WIRE (FLAT TYPE) (16 CORE)	
404	3-087-053-01	+BVTP 2.6 (3CR)	

SECTION 8
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

- Abbreviation
  E3 : 240 V AC area in E model
  E12 : 220 – 240 V AC area in E model
  E15 : Iran model
  SP : Singapore model
  TH : Thai model

Ref. No.	Part No.	Description			Remark
	A-1112-422-A	AMP BOARD, COMPLETE (EXCEPT TH)			
	A-4752-359-A	AMP BOARD, COMPLETE (TH)			
		**********			
	7-685-872-09	SCREW +BVTT 3X8 (S)			
		< CAPACITOR >			
C402	1-162-306-11	CERAMIC	0.01uF	20%	16V
C403	1-137-749-11	MYLAR	0.1uF		100V
C404	1-137-749-11	MYLAR	0.1uF		100V
C405	1-135-928-21	ELECT	2200uF	20%	63V
C406	1-135-928-21	ELECT	2200uF	20%	63V
C407	1-162-306-11	CERAMIC	0.01uF	20%	16V
C408	1-162-306-11	CERAMIC	0.01uF	20%	16V
C411	1-162-306-11	CERAMIC	0.01uF	20%	16V
C441	1-126-964-11	ELECT	10uF	20%	50V
C442	1-126-964-11	ELECT	10uF	20%	50V
C443	1-162-294-31	CERAMIC	0.001uF	10%	50V
C444	1-162-294-31	CERAMIC	0.001uF	10%	50V
C445	1-162-282-31	CERAMIC	100PF	10%	50V
C446	1-162-282-31	CERAMIC	100PF	10%	50V
C447	1-126-965-11	ELECT	22uF	20%	50V
C448	1-126-965-11	ELECT	22uF	20%	50V
C451	1-136-165-00	FILM	0.1uF	5%	50V
C452	1-136-165-00	FILM	0.1uF	5%	50V
C453	1-136-165-00	FILM	0.1uF	5%	50V
C454	1-136-165-00	FILM	0.1uF	5%	50V
C481	1-104-658-11	ELECT	100uF	20%	10V
C486	1-126-961-11	ELECT	2.2uF	20%	50V
C487	1-126-963-11	ELECT	4.7uF	20%	50V
C488	1-126-965-11	ELECT	22uF	20%	50V
C489	1-128-563-11	ELECT	100uF	20%	100V
C492	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CONNECTOR >			
CN441	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			
		< DIODE >			
D401	6-500-360-01	DIODE D10XB20			
D441	8-719-991-33	DIODE 1SS133T-77			
D442	8-719-991-33	DIODE 1SS133T-77			
D443	8-719-991-33	DIODE 1SS133T-77			
D481	8-719-991-33	DIODE 1SS133T-77			
D482	8-719-991-33	DIODE 1SS133T-77			
D483	8-719-991-33	DIODE 1SS133T-77			

Ref. No.	Part No.	Description			Remark
		< EARTH TERMINAL >			
* EP401	1-537-738-21	TERMINAL, EARTH			
* EP402	1-537-738-21	TERMINAL, EARTH			
* EP491	1-537-738-21	TERMINAL, EARTH			
		< IC >			
IC441	6-600-221-01	IC STK403-130-E			
		< TERMINAL BOARD >			
JK441	1-694-884-11	TERMINAL BOARD (4P) (SPEAKER)			
		< COIL >			
L441	1-420-872-52	COIL, AIR-CORE (TH)			
L441	1-422-009-13	COIL, AIR-CORE (EXCEPT TH)			
L442	1-420-872-52	COIL, AIR-CORE (TH)			
L442	1-422-009-13	COIL, AIR-CORE (EXCEPT TH)			
		< TRANSISTOR >			
Q441	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q442	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q481	8-729-119-78	TRANSISTOR 2SC2785-HFE (TH)			
Q481	8-729-119-79	TRANSISTOR 2SC2785-FEK (EXCEPT TH)			
Q482	8-729-119-78	TRANSISTOR 2SC2785-HFE (TH)			
Q482	8-729-119-79	TRANSISTOR 2SC2785-FEK (EXCEPT TH)			
Q483	8-729-119-79	TRANSISTOR 2SC2785-FEK			
Q484	8-729-119-79	TRANSISTOR 2SC2785-FEK			
Q485	8-729-026-39	TRANSISTOR 2SA933AS-QT (TH)			
Q485	8-729-119-76	TRANSISTOR 2SA1175-HFE (EXCEPT TH)			
Q486	8-729-119-78	TRANSISTOR 2SC2785-HFE (TH)			
Q486	8-729-119-79	TRANSISTOR 2SC2785-FEK (EXCEPT TH)			
Q487	8-729-119-78	TRANSISTOR 2SC2785-HFE (TH)			
Q487	8-729-119-79	TRANSISTOR 2SC2785-FEK (EXCEPT TH)			
Q488	8-729-119-78	TRANSISTOR 2SC2785-HFE (TH)			
Q488	8-729-119-79	TRANSISTOR 2SC2785-FEK (EXCEPT TH)			
Q489	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
		< RESISTOR >			
R401	1-249-441-11	CARBON	100K	5%	1/4W
R402	1-249-441-11	CARBON	100K	5%	1/4W
⚠R407	1-260-087-11	CARBON	100	5%	1/2W F
R411	1-249-421-11	CARBON	2.2K	5%	1/4W
R412	1-249-421-11	CARBON	2.2K	5%	1/4W
R413	1-249-425-11	CARBON	4.7K	5%	1/4W
R414	1-249-425-11	CARBON	4.7K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R441	1-249-417-11	CARBON	1K	5%	1/4W
R442	1-249-417-11	CARBON	1K	5%	1/4W
R443	1-249-437-11	CARBON	47K	5%	1/4W
R444	1-249-437-11	CARBON	47K	5%	1/4W
R445	1-249-417-11	CARBON	1K	5%	1/4W
R446	1-249-417-11	CARBON	1K	5%	1/4W
R447	1-249-437-11	CARBON	47K	5%	1/4W
R448	1-249-437-11	CARBON	47K	5%	1/4W
⚠R451	1-217-156-00	METAL	0.22	10%	5W F
⚠R452	1-217-156-00	METAL	0.22	10%	5W F
⚠R453	1-260-076-11	CARBON	10	5%	1/2W F
⚠R454	1-260-076-11	CARBON	10	5%	1/2W F
R455	1-249-417-11	CARBON	1K	5%	1/4W
R456	1-249-417-11	CARBON	1K	5%	1/4W
R457	1-249-433-11	CARBON	22K	5%	1/4W
R458	1-249-433-11	CARBON	22K	5%	1/4W
R459	1-249-437-11	CARBON	47K	5%	1/4W
R460	1-249-437-11	CARBON	47K	5%	1/4W
⚠R461	1-260-076-11	CARBON	10	5%	1/2W F
⚠R462	1-260-076-11	CARBON	10	5%	1/2W F
R465	1-249-437-11	CARBON	47K	5%	1/4W
R466	1-249-438-11	CARBON	56K	5%	1/4W
R467	1-249-435-11	CARBON	33K	5%	1/4W
R481	1-249-425-11	CARBON	4.7K	5%	1/4W
R482	1-249-429-11	CARBON	10K	5%	1/4W
R483	1-247-791-11	CARBON	22	5%	1/4W
R484	1-249-438-11	CARBON	56K	5%	1/4W
R485	1-249-441-11	CARBON	100K	5%	1/4W
R486	1-249-441-11	CARBON	100K	5%	1/4W
R487	1-249-435-11	CARBON	33K	5%	1/4W
R488	1-249-433-11	CARBON	22K	5%	1/4W
R489	1-249-425-11	CARBON	4.7K	5%	1/4W
R490	1-249-425-11	CARBON	4.7K	5%	1/4W
R491	1-249-433-11	CARBON	22K	5%	1/4W
R492	1-249-417-11	CARBON	1K	5%	1/4W
R493	1-249-435-11	CARBON	33K	5%	1/4W
R494	1-249-421-11	CARBON	2.2K	5%	1/4W
⚠R495	1-202-972-61	FUSIBLE	1	5%	1/4W F
⚠R496	1-212-881-11	FUSIBLE	100	5%	1/4W F
		< RELAY >			
RY441	1-755-373-11	RELAY			
		< THERMISTOR >			
TH441	1-807-796-11	THERMISTOR			
**********					
	A-4750-371-A	BD49 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C102	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C103	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C104	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C107	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C108	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C109	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C110	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C111	1-126-209-11	ELECT CHIP	100uF	20%	4V

Ref. No.	Part No.	Description			Remark
C112	1-126-209-11	ELECT CHIP	100uF	20%	4V
C113	1-128-995-21	ELECT CHIP	100uF	20%	10V
C114	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C115	1-128-414-21	ELECT CHIP	220uF	20%	6.3V
C117	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C118	1-115-156-11	CERAMIC CHIP	1uF		10V
C119	1-115-156-11	CERAMIC CHIP	1uF		10V
C120	1-126-209-11	ELECT CHIP	100uF	20%	4V
C121	1-124-779-00	ELECT CHIP	10uF	20%	16V
C150	1-128-995-21	ELECT CHIP	100uF	20%	10V
C151	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C152	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C158	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C213	1-216-864-11	SHORT CHIP	0		
		< CONNECTOR >			
CN101	1-784-836-21	CONNECTOR, FFC (LIF(NON-ZIF)) 29P			
CN102	1-770-425-51	CONNECTOR, FFC/FPC 16P			
		< DIODE >			
D101	8-719-988-61	DIODE 1SS355TE-17			
		< JUMPER RESISTOR >			
FB111	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC103	8-752-089-74	IC CXA2581N-T4			
IC150	6-705-808-01	IC BA5947FM-E2			
		< JUMPER RESISTOR >			
JW102	1-216-864-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q101	8-729-049-31	TRANSISTOR 2SB710A-RTX			
Q102	8-729-424-08	TRANSISTOR UN2111			
		< RESISTOR >			
R101	1-216-864-11	SHORT CHIP	0		
R102	1-216-835-11	METAL CHIP	15K	5%	1/10W
R103	1-216-845-11	METAL CHIP	100K	5%	1/10W
R104	1-216-835-11	METAL CHIP	15K	5%	1/10W
R105	1-216-821-11	METAL CHIP	1K	5%	1/10W
R109	1-216-846-11	METAL CHIP	120K	5%	1/10W
R111	1-216-845-11	METAL CHIP	100K	5%	1/10W
R113	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R114	1-216-841-11	METAL CHIP	47K	5%	1/10W
R115	1-216-841-11	METAL CHIP	47K	5%	1/10W
R118	1-216-864-11	SHORT CHIP	0		
R119	1-216-864-11	SHORT CHIP	0		
R120	1-216-846-11	METAL CHIP	120K	5%	1/10W
R122	1-216-845-11	METAL CHIP	100K	5%	1/10W
R123	1-216-797-11	METAL CHIP	10	5%	1/10W
R124	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R125	1-216-836-11	METAL CHIP	18K	5%	1/10W
R126	1-216-836-11	METAL CHIP	18K	5%	1/10W
R131	1-216-845-11	METAL CHIP	100K	5%	1/10W
R132	1-216-853-11	METAL CHIP	470K	5%	1/10W
R133	1-216-825-11	METAL CHIP	2.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R151	1-216-833-11	METAL CHIP	10K	5%	1/10W
R152	1-216-837-11	METAL CHIP	22K	5%	1/10W
R153	1-216-864-11	SHORT CHIP	0		
R155	1-216-864-11	SHORT CHIP	0		
R156	1-216-864-11	SHORT CHIP	0		
R220	1-216-821-11	METAL CHIP	1K	5%	1/10W
R234	1-216-864-11	SHORT CHIP	0		
		< SWITCH >			
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)			
**********					
	1-687-135-12	DRIVER BOARD			
		**********			
		< CAPACITOR >			
C715	1-126-933-11	ELECT	100uF	20%	16V
C731	1-126-964-11	ELECT	10uF	20%	50V
C735	1-164-159-21	CERAMIC	0.1uF		50V
C736	1-164-159-21	CERAMIC	0.1uF		50V
C737	1-164-159-21	CERAMIC	0.1uF		50V
C741	1-162-306-11	CERAMIC	0.01uF	20%	16V
C751	1-162-306-11	CERAMIC	0.01uF	20%	16V
C752	1-164-159-21	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN701	1-785-338-11	PIN, CONNECTOR (LIGHT ANGLE) 12P			
CN702	1-784-766-11	CONNECTOR, FFC 5P			
* CN703	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN704	1-785-328-11	PIN, CONNECTOR (LIGHT ANGLE) 2P			
		< DIODE >			
D701	8-719-921-42	DIODE MTZJ-5.1A			
D711	8-719-109-69	DIODE RD3.6ESB2			
		< IC >			
IC701	8-759-598-69	IC BA6956AN			
IC712	8-759-598-69	IC BA6956AN			
		< TRANSISTOR >			
Q731	8-729-029-66	TRANSISTOR DTC114ESA			
		< RESISTOR >			
R701	1-249-413-11	CARBON	470	5%	1/4W
R702	1-247-807-31	CARBON	100	5%	1/4W
R711	1-249-417-11	CARBON	1K	5%	1/4W
R712	1-249-425-11	CARBON	4.7K	5%	1/4W
R713	1-249-433-11	CARBON	22K	5%	1/4W
R721	1-249-425-11	CARBON	4.7K	5%	1/4W
R722	1-249-425-11	CARBON	4.7K	5%	1/4W
R723	1-249-425-11	CARBON	4.7K	5%	1/4W
R731	1-247-807-31	CARBON	100	5%	1/4W
R732	1-249-429-11	CARBON	10K	5%	1/4W
R733	1-249-417-11	CARBON	1K	5%	1/4W
R734	1-249-430-11	CARBON	12K	5%	1/4W
R735	1-247-807-31	CARBON	100	5%	1/4W
R751	1-249-425-11	CARBON	4.7K	5%	1/4W
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Ref. No.	Part No.	Description			Remark
		H/P JACK BOARD			
		**********			
		< CAPACITOR >			
C830	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C831	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C832	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< JACK >			
J801	1-785-448-21	JACK (PHONES)			
**********					
	A-1112-419-A	MAIN BOARD, COMPLETE (EXCEPT TH)			
	A-4752-356-A	MAIN BOARD, COMPLETE (TH)			
		**********			
	7-685-872-09	SCREW +BVTT 3X8 (S)			
		< CAPACITOR >			
C101	1-126-960-11	ELECT	1uF	20%	50V
C102	1-126-960-11	ELECT	1uF	20%	50V
C103	1-126-956-11	ELECT	0.1uF	20%	50V
C104	1-126-956-11	ELECT	0.1uF	20%	50V
C105	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C106	1-131-679-31	FILM	0.01uF	5%	50V
C107	1-126-964-11	ELECT	10uF	20%	50V
C108	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C109	1-131-679-31	FILM	0.01uF	5%	50V
C110	1-126-964-11	ELECT	10uF	20%	50V
C111	1-819-786-11	ELECT	1uF	20%	50V
C112	1-819-786-11	ELECT	1uF	20%	50V
C113	1-819-786-11	ELECT	1uF	20%	50V
C114	1-819-786-11	ELECT	1uF	20%	50V
C115	1-131-679-31	FILM	0.01uF	5%	50V
C116	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C117	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C118	1-126-964-11	ELECT	10uF	20%	50V
C119	1-131-679-31	FILM	0.01uF	5%	50V
C120	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C121	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C122	1-126-964-11	ELECT	10uF	20%	50V
C123	1-126-965-11	ELECT	22uF	20%	50V
C124	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C125	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C126	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C127	1-104-658-11	ELECT	100uF	20%	10V
C128	1-104-658-11	ELECT	100uF	20%	10V
C129	1-126-947-11	ELECT	47uF	20%	35V
C132	1-126-947-11	ELECT	47uF	20%	35V
C135	1-131-690-31	FILM	0.068uF	5%	50V
C136	1-131-690-31	FILM	0.068uF	5%	50V
C137	1-126-964-11	ELECT	10uF	20%	50V
C138	1-126-964-11	ELECT	10uF	20%	50V
C139	1-131-690-31	FILM	0.068uF	5%	50V
C140	1-131-690-31	FILM	0.068uF	5%	50V
C141	1-126-964-11	ELECT	10uF	20%	50V
C142	1-126-964-11	ELECT	10uF	20%	50V
C143	1-126-960-11	ELECT	1uF	20%	50V
C144	1-136-165-00	FILM	0.1uF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C145	1-126-964-11	ELECT	10uF	20%	50V
C146	1-136-165-00	FILM	0.1uF	5%	50V
C147	1-126-964-11	ELECT	10uF	20%	50V
C148	1-131-679-31	FILM	0.01uF	5%	50V
C149	1-131-679-31	FILM	0.01uF	5%	50V
C150	1-131-679-31	FILM	0.01uF	5%	50V
C151	1-131-679-31	FILM	0.01uF	5%	50V
C152	1-130-475-00	MYLAR	0.0022uF	5%	50V
C153	1-130-475-00	MYLAR	0.0022uF	5%	50V
C154	1-131-700-31	FILM	0.47uF	5%	50V
C157	1-126-960-11	ELECT	1uF	20%	50V
C159	1-126-960-11	ELECT	1uF	20%	50V
C160	1-126-960-11	ELECT	1uF	20%	50V
C162	1-126-960-11	ELECT	1uF	20%	50V
C164	1-126-960-11	ELECT	1uF	20%	50V
C165	1-126-960-11	ELECT	1uF	20%	50V
C166	1-126-960-11	ELECT	1uF	20%	50V
C175	1-109-953-11	ELECT	2.2uF	20%	50V
C176	1-126-964-11	ELECT	10uF	20%	50V
C177	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C178	1-126-947-11	ELECT	47uF	20%	35V
C179	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C181	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C183	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C184	1-126-947-11	ELECT	47uF	20%	35V
C185	1-126-964-11	ELECT	10uF	20%	50V
C186	1-126-947-11	ELECT	47uF	20%	35V
C187	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C188	1-126-965-11	ELECT	22uF	20%	50V
C189	1-126-965-11	ELECT	22uF	20%	50V
C190	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C191	1-126-961-11	ELECT	2.2uF	20%	50V
C192	1-126-961-11	ELECT	2.2uF	20%	50V
C193	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C206	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C211	1-109-953-11	ELECT	2.2uF	20%	50V
C212	1-126-964-11	ELECT	10uF	20%	50V
C213	1-126-964-11	ELECT	10uF	20%	50V
C214	1-126-926-11	ELECT	1000uF	20%	10V
C216	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C217	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C222	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C228	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C229	1-126-963-11	ELECT	4.7uF	20%	50V
C230	1-126-947-11	ELECT	47uF	20%	35V
C235	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C241	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C242	1-130-479-00	MYLAR	0.0047uF	5%	50V
C243	1-131-681-31	FILM	0.015uF	5%	50V
C244	1-131-681-31	FILM	0.015uF	5%	50V
C246	1-131-681-31	FILM	0.015uF	5%	50V
C248	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C249	1-126-964-11	ELECT	10uF	20%	50V
C250	1-126-947-11	ELECT	47uF	20%	35V
C251	1-126-947-11	ELECT	47uF	20%	35V
C252	1-126-933-11	ELECT	100uF	20%	16V
C253	1-126-956-11	ELECT	0.1uF	20%	50V
C258	1-126-959-11	ELECT	0.47uF	20%	50V
C259	1-126-957-11	ELECT	0.22uF	20%	50V
C264	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
C265	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
C266	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
C267	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
C270	1-126-964-11	ELECT	10uF	20%	50V
C274	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C275	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C308	1-126-965-11	ELECT	22uF	20%	50V
C309	1-126-965-11	ELECT	22uF	20%	50V
C310	1-128-547-11	ELECT	6800uF	20%	16V
C311	1-126-964-11	ELECT	10uF	20%	50V
C312	1-126-964-11	ELECT	10uF	20%	50V
C313	1-126-943-11	ELECT	2200uF	20%	25V
C315	1-126-933-11	ELECT	100uF	20%	16V
C316	1-126-943-11	ELECT	2200uF	20%	25V
C318	1-126-933-11	ELECT	100uF	20%	16V
C321	1-126-961-11	ELECT	2.2uF	20%	50V
C342	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C351	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V
C352	1-126-965-11	ELECT	22uF	20%	50V
C353	1-126-961-11	ELECT	2.2uF	20%	50V
C354	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C371	1-164-362-11	CERAMIC CHIP	470PF	5%	50V
C372	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C373	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C374	1-126-947-11	ELECT	47uF	20%	35V
C375	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C376	1-126-961-11	ELECT	2.2uF	20%	50V

< CONNECTOR >

Ref. No.	Part No.	Description
CN101	1-568-830-11	CONNECTOR, FFC 11P
* CN103	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P
CN112	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CN302	1-568-844-11	CONNECTOR, FFC 29P
* CN304	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P
CN307	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P
CN308	1-564-506-11	PLUG, CONNECTOR 3P
CN309	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P

< DIODE >

Ref. No.	Part No.	Description
D201	8-719-988-61	DIODE 1SS355TE-17
D202	8-719-083-63	DIODE UDZSTE-1713B
D206	8-719-988-61	DIODE 1SS355TE-17
D207	8-719-988-61	DIODE 1SS355TE-17
D211	8-719-988-61	DIODE 1SS355TE-17
D212	8-719-988-61	DIODE 1SS355TE-17
D213	8-719-988-61	DIODE 1SS355TE-17
D214	8-719-988-61	DIODE 1SS355TE-17
D215	8-719-988-61	DIODE 1SS355TE-17
D301	6-500-522-31	DIODE 10EDB40-TB5
D302	6-500-522-31	DIODE 10EDB40-TB5
D303	6-500-522-31	DIODE 10EDB40-TB5
D304	6-500-522-31	DIODE 10EDB40-TB5
D305	6-500-522-31	DIODE 10EDB40-TB5
D306	6-500-522-31	DIODE 10EDB40-TB5
D307	6-500-522-31	DIODE 10EDB40-TB5
D308	6-500-522-31	DIODE 10EDB40-TB5

Ref. No.	Part No.	Description	Remark
D309	6-500-522-31	DIODE 10EDB40-TB5	
D310	6-500-522-31	DIODE 10EDB40-TB5	
D311	6-500-522-31	DIODE 10EDB40-TB5	
D312	6-500-522-31	DIODE 10EDB40-TB5	
D313	8-719-085-36	DIODE 11EQS04-TB5	
D316	8-719-988-61	DIODE 1SS355TE-17	
D321	8-719-988-61	DIODE 1SS355TE-17	
D322	8-719-988-61	DIODE 1SS355TE-17	
D324	6-500-522-31	DIODE 10EDB40-TB5	
D325	6-500-522-31	DIODE 10EDB40-TB5	
		< EARTH TERMINAL >	
* EP101	1-537-738-21	TERMINAL, EARTH	
* EP301	1-537-738-21	TERMINAL, EARTH	
		< FERRITE BEAD >	
FB201	1-216-864-11	SHORT CHIP 0	
FB202	1-543-958-22	BEAD, FERRITE (CHIP) (1608)	
FB203	1-216-864-11	SHORT CHIP 0	
FB204	1-216-864-11	SHORT CHIP 0	
FB205	1-216-864-11	SHORT CHIP 0	
		< IC >	
IC101	6-705-852-01	IC BD3401KS2	
IC102	8-759-710-97	IC NJM4565M-D	
IC201	8-759-508-69	IC BA3126N	
IC301	6-702-771-01	IC TA78033LS	
IC302	6-703-547-01	IC TA7805LS	
IC303	6-703-550-01	IC TA7809LS	
IC304	6-703-550-01	IC TA7809LS	
IC371	6-704-046-01	IC BU2099FV	
		< COIL >	
L101	1-424-849-11	COIL, OSCILLATION (BIAS)	
		< TRANSISTOR >	
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	6-550-580-01	TRANSISTOR 2SA1235TP-1F	
Q103	6-550-889-01	TRANSISTOR 2SC5938-T112-1B	
Q104	6-550-889-01	TRANSISTOR 2SC5938-T112-1B	
Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q106	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q107	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q301	8-729-209-60	TRANSISTOR 2SB1375	
Q302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q304	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q305	6-550-580-01	TRANSISTOR 2SA1235TP-1F	
Q306	6-550-889-01	TRANSISTOR 2SC5938-T112-1B	
Q307	6-550-889-01	TRANSISTOR 2SC5938-T112-1B	
Q308	6-550-580-01	TRANSISTOR 2SA1235TP-1F	
Q309	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q310	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q311	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q312	6-551-128-01	TRANSISTOR 2SA953-T-LK	
Q313	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q314	6-550-580-01	TRANSISTOR 2SA1235TP-1F	
Q315	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q321	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q322	6-550-580-01	TRANSISTOR 2SA1235TP-1F	
Q323	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q324	8-729-140-04	TRANSISTOR 2SB1116A-L	
Q327	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q351	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q352	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q361	6-550-580-01	TRANSISTOR 2SA1235TP-1F	
Q362	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q372	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		< RESISTOR >	
R101	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R102	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R103	1-216-851-11	METAL CHIP 330K 5% 1/10W	
R104	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R105	1-216-816-11	METAL CHIP 390 5% 1/10W	
R106	1-216-851-11	METAL CHIP 330K 5% 1/10W	
R107	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R108	1-216-816-11	METAL CHIP 390 5% 1/10W	
R109	1-216-853-11	METAL CHIP 470K 5% 1/10W	
R110	1-216-851-11	METAL CHIP 330K 5% 1/10W	
R111	1-216-846-11	METAL CHIP 120K 5% 1/10W	
R112	1-216-853-11	METAL CHIP 470K 5% 1/10W	
R113	1-216-851-11	METAL CHIP 330K 5% 1/10W	
R114	1-216-846-11	METAL CHIP 120K 5% 1/10W	
R115	1-216-857-11	METAL CHIP 1M 5% 1/10W	
R116	1-216-809-11	METAL CHIP 100 5% 1/10W	
R117	1-216-809-11	METAL CHIP 100 5% 1/10W	
R119	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R120	1-216-857-11	METAL CHIP 1M 5% 1/10W	
R121	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R127	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R128	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R129	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R131	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R132	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R133	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R134	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R135	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R136	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R137	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R138	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R140	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R141	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R142	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R151	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R152	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R153	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R154	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R155	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R156	1-216-853-11	METAL CHIP 470K 5% 1/10W	
R157	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R158	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R159	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R160	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R161	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R162	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R163	1-216-833-11	METAL CHIP 10K 5% 1/10W	

MAIN

Ref. No.	Part No.	Description			Remark
R164	1-216-821-11	METAL CHIP	1K	5%	1/10W
R165	1-216-833-11	METAL CHIP	10K	5%	1/10W
R166	1-216-833-11	METAL CHIP	10K	5%	1/10W
R167	1-216-833-11	METAL CHIP	10K	5%	1/10W
R168	1-216-845-11	METAL CHIP	100K	5%	1/10W
R169	1-216-845-11	METAL CHIP	100K	5%	1/10W
R170	1-216-833-11	METAL CHIP	10K	5%	1/10W
R171	1-216-833-11	METAL CHIP	10K	5%	1/10W
R172	1-216-809-11	METAL CHIP	100	5%	1/10W
R173	1-216-833-11	METAL CHIP	10K	5%	1/10W
R174	1-216-833-11	METAL CHIP	10K	5%	1/10W
R175	1-216-833-11	METAL CHIP	10K	5%	1/10W
R176	1-216-849-11	METAL CHIP	220K	5%	1/10W
R177	1-216-849-11	METAL CHIP	220K	5%	1/10W
R194	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R195	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R197	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R198	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R201	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R202	1-216-833-11	METAL CHIP	10K	5%	1/10W
R203	1-216-833-11	METAL CHIP	10K	5%	1/10W
R204	1-216-833-11	METAL CHIP	10K	5%	1/10W
R205	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R206	1-216-841-11	METAL CHIP	47K	5%	1/10W
R207	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R208	1-216-821-11	METAL CHIP	1K	5%	1/10W
R209	1-216-833-11	METAL CHIP	10K	5%	1/10W
R210	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R211	1-216-821-11	METAL CHIP	1K	5%	1/10W
R212	1-216-833-11	METAL CHIP	10K	5%	1/10W
R213	1-216-821-11	METAL CHIP	1K	5%	1/10W
R214	1-216-821-11	METAL CHIP	1K	5%	1/10W
R216	1-216-806-11	METAL CHIP	56	5%	1/10W
R217	1-216-806-11	METAL CHIP	56	5%	1/10W
⚠R218	1-215-891-11	METAL OXIDE	680	5%	2W F
⚠R219	1-215-891-11	METAL OXIDE	680	5%	2W F
R220	1-216-837-11	METAL CHIP	22K	5%	1/10W
R221	1-216-837-11	METAL CHIP	22K	5%	1/10W
R222	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R223	1-216-864-11	SHORT CHIP	0		
R225	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R226	1-216-841-11	METAL CHIP	47K	5%	1/10W
R227	1-216-821-11	METAL CHIP	1K	5%	1/10W
R228	1-216-821-11	METAL CHIP	1K	5%	1/10W
R229	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R230	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R231	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R232	1-216-833-11	METAL CHIP	10K	5%	1/10W
R235	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R241	1-216-797-11	METAL CHIP	10	5%	1/10W
R242	1-216-837-11	METAL CHIP	22K	5%	1/10W
R243	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R244	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R245	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R246	1-216-809-11	METAL CHIP	100	5%	1/10W
R247	1-216-833-11	METAL CHIP	10K	5%	1/10W
R248	1-216-833-11	METAL CHIP	10K	5%	1/10W
R249	1-216-841-11	METAL CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R250	1-216-833-11	METAL CHIP	10K	5%	1/10W
R251	1-216-833-11	METAL CHIP	10K	5%	1/10W
R252	1-216-864-11	SHORT CHIP	0		
R253	1-216-809-11	METAL CHIP	100	5%	1/10W
R254	1-216-809-11	METAL CHIP	100	5%	1/10W
R262	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R263	1-216-857-11	METAL CHIP	1M	5%	1/10W
R264	1-216-821-11	METAL CHIP	1K	5%	1/10W
R265	1-216-833-11	METAL CHIP	10K	5%	1/10W
R266	1-216-845-11	METAL CHIP	100K	5%	1/10W
R272	1-216-853-11	METAL CHIP	470K	5%	1/10W
R273	1-216-864-11	SHORT CHIP	0		
R274	1-216-864-11	SHORT CHIP	0		
R275	1-216-864-11	SHORT CHIP	0		
R280	1-216-797-11	METAL CHIP	10	5%	1/10W
R281	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R282	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R283	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R284	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R301	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R302	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R303	1-216-833-11	METAL CHIP	10K	5%	1/10W
R304	1-216-833-11	METAL CHIP	10K	5%	1/10W
R305	1-216-833-11	METAL CHIP	10K	5%	1/10W
R306	1-216-833-11	METAL CHIP	10K	5%	1/10W
R307	1-216-833-11	METAL CHIP	10K	5%	1/10W
R308	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R310	1-216-833-11	METAL CHIP	10K	5%	1/10W
R311	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R312	1-216-837-11	METAL CHIP	22K	5%	1/10W
R313	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R321	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R322	1-216-837-11	METAL CHIP	22K	5%	1/10W
R323	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R324	1-216-833-11	METAL CHIP	10K	5%	1/10W
R325	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R341	1-216-833-11	METAL CHIP	10K	5%	1/10W
R342	1-216-821-11	METAL CHIP	1K	5%	1/10W
R343	1-216-837-11	METAL CHIP	22K	5%	1/10W
R344	1-216-837-11	METAL CHIP	22K	5%	1/10W
R345	1-216-833-11	METAL CHIP	10K	5%	1/10W
R346	1-216-821-11	METAL CHIP	1K	5%	1/10W
R347	1-216-837-11	METAL CHIP	22K	5%	1/10W
R348	1-216-837-11	METAL CHIP	22K	5%	1/10W
R351	1-216-835-11	METAL CHIP	15K	5%	1/10W
R352	1-216-845-11	METAL CHIP	100K	5%	1/10W
R353	1-216-841-11	METAL CHIP	47K	5%	1/10W
R354	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R356	1-216-817-11	METAL CHIP	470	5%	1/10W
R357	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R358	1-216-809-11	METAL CHIP	100	5%	1/10W
R361	1-216-833-11	METAL CHIP	10K	5%	1/10W
R362	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R363	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R364	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R371	1-216-809-11	METAL CHIP	100	5%	1/10W
R372	1-216-809-11	METAL CHIP	100	5%	1/10W
R373	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R374	1-216-833-11	METAL CHIP	10K	5%	1/10W
R375	1-216-833-11	METAL CHIP	10K	5%	1/10W
R376	1-216-833-11	METAL CHIP	10K	5%	1/10W
R377	1-216-833-11	METAL CHIP	10K	5%	1/10W
R378	1-216-833-11	METAL CHIP	10K	5%	1/10W
R379	1-216-833-11	METAL CHIP	10K	5%	1/10W
R380	1-216-833-11	METAL CHIP	10K	5%	1/10W
R381	1-216-833-11	METAL CHIP	10K	5%	1/10W
R382	1-216-833-11	METAL CHIP	10K	5%	1/10W
R383	1-216-833-11	METAL CHIP	10K	5%	1/10W
R384	1-216-833-11	METAL CHIP	10K	5%	1/10W
R385	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R386	1-216-837-11	METAL CHIP	22K	5%	1/10W
R387	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R388	1-216-837-11	METAL CHIP	22K	5%	1/10W
R389	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R390	1-216-837-11	METAL CHIP	22K	5%	1/10W
R391	1-216-833-11	METAL CHIP	10K	5%	1/10W
R392	1-216-821-11	METAL CHIP	1K	5%	1/10W
R393	1-216-833-11	METAL CHIP	10K	5%	1/10W
R394	1-216-821-11	METAL CHIP	1K	5%	1/10W
R395	1-216-837-11	METAL CHIP	22K	5%	1/10W
R398	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R399	1-216-833-11	METAL CHIP	10K	5%	1/10W

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A-1112-192-A MIC BOARD, COMPLETE (EXCEPT TH)
A-4752-301-A MIC BOARD, COMPLETE (TH)
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< CAPACITOR >

C811	1-131-681-31	FILM	0.015uF	5%	50V
C812	1-124-463-00	ELECT	0.1uF	20%	50V
C813	1-126-157-11	ELECT	10uF	20%	16V
C814	1-126-157-11	ELECT	10uF	20%	16V
C815	1-124-257-00	ELECT	2.2uF	20%	50V
C816	1-124-257-00	ELECT	2.2uF	20%	50V
C817	1-124-584-00	ELECT	100uF	20%	10V
C818	1-124-584-00	ELECT	100uF	20%	10V
C819	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C820	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C821	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C822	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C823	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C824	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C825	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C826	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C827	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C828	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C829	1-126-157-11	ELECT	10uF	20%	16V
C830	1-126-157-11	ELECT	10uF	20%	16V
C831	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C833	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C834	1-162-951-11	CERAMIC CHIP	68PF	5%	50V
C835	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C836	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C837	1-126-157-11	ELECT	10uF	20%	16V
C838	1-119-941-11	ELECT	470uF	20%	6.3V
C839	1-124-589-11	ELECT	47uF	20%	16V
C841	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V

C842	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C843	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C844	1-131-690-31	FILM	0.068uF	5%	50V
C845	1-124-589-11	ELECT	47uF	20%	16V
C846	1-124-589-11	ELECT	47uF	20%	16V
C847	1-126-160-11	ELECT	1uF	20%	50V
C848	1-136-167-00	FILM	0.15uF	5%	50V
C849	1-124-465-00	ELECT	0.47uF	20%	50V
C850	1-124-465-00	ELECT	0.47uF	20%	50V
C851	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C852	1-131-690-31	FILM	0.068uF	5%	50V
C853	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C854	1-126-160-11	ELECT	1uF	20%	50V
C857	1-124-257-00	ELECT	2.2uF	20%	50V
C858	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C859	1-126-157-11	ELECT	10uF	20%	16V
C862	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V

< DIODE >

D801	8-719-988-61	DIODE 1SS355TE-17
D802	8-719-988-61	DIODE 1SS355TE-17
D803	8-719-069-54	DIODE UDZSTE-175.1B

< IC >

IC801	8-759-710-97	IC NJM4565M-D
IC802	8-759-496-40	IC M65850FP (TH)
IC802	8-759-496-41	IC M65850FP-E1 (EXCEPT TH)
IC803	8-759-295-90	IC NJM2244M-TE2

< JACK >

J805	1-764-592-11	JACK, PIN 3P (GAME INPUT VIDEO/AUDIO)
JK802	1-770-226-11	JACK (LARGE TYPE) (MIC)

< JUMPER RESISTOR >

JR803	1-216-864-11	SHORT CHIP	0
JR805	1-216-864-11	SHORT CHIP	0
JR806	1-216-864-11	SHORT CHIP	0

< TRANSISTOR >

Q801	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q802	8-729-120-28	TRANSISTOR 2SC1623-L5L6

< RESISTOR >

R805	1-216-833-11	METAL CHIP	10K	5%	1/10W
R806	1-216-833-11	METAL CHIP	10K	5%	1/10W
R807	1-216-833-11	METAL CHIP	10K	5%	1/10W
R808	1-216-845-11	METAL CHIP	100K	5%	1/10W
R809	1-216-821-11	METAL CHIP	1K	5%	1/10W
R810	1-216-837-11	METAL CHIP	22K	5%	1/10W
R811	1-216-809-11	METAL CHIP	100	5%	1/10W
R812	1-216-845-11	METAL CHIP	100K	5%	1/10W
R813	1-216-809-11	METAL CHIP	100	5%	1/10W
R814	1-216-849-11	METAL CHIP	220K	5%	1/10W
R815	1-216-833-11	METAL CHIP	10K	5%	1/10W
R816	1-216-833-11	METAL CHIP	10K	5%	1/10W
R817	1-216-821-11	METAL CHIP	1K	5%	1/10W
R818	1-216-834-11	METAL CHIP	12K	5%	1/10W
R819	1-216-837-11	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R820	1-216-837-11	METAL CHIP	22K	5%	1/10W
R821	1-216-833-11	METAL CHIP	10K	5%	1/10W
R822	1-216-833-11	METAL CHIP	10K	5%	1/10W
R823	1-216-833-11	METAL CHIP	10K	5%	1/10W
R824	1-216-833-11	METAL CHIP	10K	5%	1/10W
R825	1-216-805-11	METAL CHIP	47	5%	1/10W
R826	1-218-285-11	METAL CHIP	75	5%	1/10W
R827	1-216-821-11	METAL CHIP	1K	5%	1/10W
R828	1-216-841-11	METAL CHIP	47K	5%	1/10W
R829	1-216-837-11	METAL CHIP	22K	5%	1/10W
R830	1-216-845-11	METAL CHIP	100K	5%	1/10W
R831	1-216-845-11	METAL CHIP	100K	5%	1/10W
R832	1-216-821-11	METAL CHIP	1K	5%	1/10W
R833	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R891	1-216-837-11	METAL CHIP	22K	5%	1/10W
R892	1-216-837-11	METAL CHIP	22K	5%	1/10W
R893	1-216-837-11	METAL CHIP	22K	5%	1/10W
R894	1-216-846-11	METAL CHIP	120K	5%	1/10W
R895	1-216-178-00	RES-CHIP	150	5%	1/8W
R896	1-216-837-11	METAL CHIP	22K	5%	1/10W
R897	1-216-837-11	METAL CHIP	22K	5%	1/10W
R898	1-216-837-11	METAL CHIP	22K	5%	1/10W
R899	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< VARIABLE RESISTOR >			
VR801	1-223-983-11	RES, VAR, CARBON 50K (MIC LEVEL)			
VR802	1-223-983-11	RES, VAR, CARBON 50K (ECHO LEVEL)			
**********					
	1-687-133-12	MOTOR (LD) BOARD			
		**********			
	3-231-598-01	SHEET (BA)			
**********					
	1-687-134-12	MOTOR (TB) BOARD			
		**********			
		< CONNECTOR >			
CN742	1-784-727-11	CONNECTOR, FFC 5P			
**********					
	A-1112-417-A	PANEL BOARD, COMPLETE (EXCEPT TH)			
	A-4752-354-A	PANEL BOARD, COMPLETE (TH)			
		**********			
		< CAPACITOR >			
C605	1-126-163-11	ELECT	4.7uF	20%	50V
C606	1-115-156-11	CERAMIC CHIP	1uF		10V
C607	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C608	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C609	1-115-156-11	CERAMIC CHIP	1uF		10V
C610	1-126-916-11	ELECT	1000uF	20%	6.3V
C611	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C612	1-126-157-11	ELECT	10uF	20%	16V
C613	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C614	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C615	1-124-257-00	ELECT	2.2uF	20%	50V
C617	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C619	1-124-589-11	ELECT	47uF	20%	16V

Ref. No.	Part No.	Description			Remark
C620	1-119-772-11	ELECT	47uF	20%	35V
C621	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C622	1-126-163-11	ELECT	4.7uF	20%	50V
C623	1-126-163-11	ELECT	4.7uF	20%	50V
C624	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C625	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C626	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C628	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C629	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C630	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C631	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C632	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C633	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C634	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C635	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C636	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C637	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C638	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C639	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C640	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EXCEPT TH)
C641	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C642	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C643	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C646	1-124-234-00	ELECT	22uF	20%	16V
C647	1-124-589-11	ELECT	47uF	20%	16V
C648	1-124-234-00	ELECT	22uF	20%	16V
C649	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C653	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C654	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C655	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C656	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CN601	1-784-751-11	CONNECTOR, FFC 29P			
CN602	1-784-774-11	CONNECTOR, FFC 13P			
CN603	1-568-830-11	CONNECTOR, FFC 11P			
* CN604	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN605	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CN608	1-818-282-11	PIN, CONNECTOR (FOR PWB) 3P			
		< DIODE >			
D603	8-719-988-61	DIODE 1SS355TE-17			
D604	8-719-988-61	DIODE 1SS355TE-17			
D605	8-719-988-61	DIODE 1SS355TE-17			
* D606	6-500-486-01	DIODE PTZ-TE25-11B			
D607	8-719-988-61	DIODE 1SS355TE-17			
D608	8-719-988-61	DIODE 1SS355TE-17			

Ref. No.	Part No.	Description			Remark
D609	8-719-988-61	DIODE 1SS355TE-17			
D610	8-719-056-78	DIODE UDZ-TE-17-4.3B			
D611	8-719-988-61	DIODE 1SS355TE-17			
D613	8-719-988-61	DIODE 1SS355TE-17			
D614	8-719-988-61	DIODE 1SS355TE-17			
D615	8-719-988-61	DIODE 1SS355TE-17			
D616	8-719-988-61	DIODE 1SS355TE-17			
D626	8-719-988-61	DIODE 1SS355TE-17			
D627	8-719-988-61	DIODE 1SS355TE-17			
D630	8-719-988-61	DIODE 1SS355TE-17			
D631	8-719-978-33	DIODE DTZ-TT11-6.8B			
D632	8-719-083-57	DIODE UDZSTE-173.6B			
D633	8-719-988-61	DIODE 1SS355TE-17			
		< FLUORESCENT INDICATOR TUBE >			
FL601	1-518-976-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC601	6-805-470-01	IC LC876A64C-55EO-E			
IC603	6-704-045-01	IC MM1574ANLE			
IC604	8-759-533-04	IC M62703ML-E1			
		< JUMPER RESISTOR >			
JR604	1-216-864-11	SHORT CHIP	0		
JR605	1-216-864-11	SHORT CHIP	0		
JR606	1-216-864-11	SHORT CHIP	0		
JR618	1-216-864-11	SHORT CHIP	0		
JR619	1-216-864-11	SHORT CHIP	0		
JR621	1-216-864-11	SHORT CHIP	0		
JR622	1-216-864-11	SHORT CHIP	0		
JR623	1-216-864-11	SHORT CHIP	0		
		< DIODE >			
LED601	6-500-809-01	LED SELU5223C-STP15 (I/⏻)			
		< TRANSISTOR >			
Q601	8-729-116-57	TRANSISTOR 2SB1068-K			
Q602	8-729-140-04	TRANSISTOR 2SB1116A-L			
Q603	8-729-140-04	TRANSISTOR 2SB1116A-L			
Q604	8-729-026-39	TRANSISTOR 2SA933AS-QT (TH)			
Q604	8-729-119-76	TRANSISTOR 2SA1175-HFE (EXCEPT TH)			
Q605	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q606	8-729-027-55	TRANSISTOR DTC143EKA-T146			
Q607	8-729-027-55	TRANSISTOR DTC143EKA-T146			
Q608	8-729-027-55	TRANSISTOR DTC143EKA-T146			
Q610	8-729-027-55	TRANSISTOR DTC143EKA-T146			
Q611	8-729-027-55	TRANSISTOR DTC143EKA-T146			
Q612	8-729-027-55	TRANSISTOR DTC143EKA-T146			
Q613	8-729-027-55	TRANSISTOR DTC143EKA-T146			
Q614	8-729-027-55	TRANSISTOR DTC143EKA-T146			
Q615	8-729-027-55	TRANSISTOR DTC143EKA-T146			
Q616	8-729-027-55	TRANSISTOR DTC143EKA-T146			
		< RESISTOR >			
R601	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R602	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R603	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R604	1-216-841-11	METAL CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R605	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R606	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R607	1-216-841-11	METAL CHIP	47K	5%	1/10W
R608	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R609	1-216-837-11	METAL CHIP	22K	5%	1/10W
R610	1-216-833-11	METAL CHIP	10K	5%	1/10W
R611	1-216-837-11	METAL CHIP	22K	5%	1/10W
R612	1-216-833-11	METAL CHIP	10K	5%	1/10W
R613	1-216-837-11	METAL CHIP	22K	5%	1/10W
R614	1-216-837-11	METAL CHIP	22K	5%	1/10W
R615	1-216-837-11	METAL CHIP	22K	5%	1/10W
R616	1-216-833-11	METAL CHIP	10K	5%	1/10W
R617	1-216-837-11	METAL CHIP	22K	5%	1/10W
R618	1-216-833-11	METAL CHIP	10K	5%	1/10W
R619	1-216-837-11	METAL CHIP	22K	5%	1/10W
R620	1-216-837-11	METAL CHIP	22K	5%	1/10W
R621	1-216-833-11	METAL CHIP	10K	5%	1/10W
R622	1-216-049-11	RES-CHIP	1K	5%	1/10W
R623	1-216-833-11	METAL CHIP	10K	5%	1/10W
R624	1-216-049-11	RES-CHIP	1K	5%	1/10W
R625	1-216-833-11	METAL CHIP	10K	5%	1/10W
R626	1-216-049-11	RES-CHIP	1K	5%	1/10W
R627	1-216-833-11	METAL CHIP	10K	5%	1/10W
R628	1-216-833-11	METAL CHIP	10K	5%	1/10W
R629	1-216-150-11	RES-CHIP	10	5%	1/8W
R630	1-216-809-11	METAL CHIP	100	5%	1/10W
R631	1-216-809-11	METAL CHIP	100	5%	1/10W
R635	1-216-809-11	METAL CHIP	100	5%	1/10W
R639	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R640	1-216-834-11	METAL CHIP	12K	5%	1/10W
R641	1-216-849-11	METAL CHIP	220K	5%	1/10W
R642	1-216-817-11	METAL CHIP	470	5%	1/10W
R643	1-216-819-11	METAL CHIP	680	5%	1/10W
R644	1-216-821-11	METAL CHIP	1K	5%	1/10W
R645	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R646	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R647	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R648	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R649	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R650	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R651	1-216-833-11	METAL CHIP	10K	5%	1/10W
R652	1-216-835-11	METAL CHIP	15K	5%	1/10W
R653	1-216-817-11	METAL CHIP	470	5%	1/10W
R654	1-216-819-11	METAL CHIP	680	5%	1/10W
R655	1-216-821-11	METAL CHIP	1K	5%	1/10W
R656	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R657	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R658	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R659	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R660	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R661	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R662	1-216-833-11	METAL CHIP	10K	5%	1/10W
R663	1-216-837-11	METAL CHIP	22K	5%	1/10W
R664	1-216-817-11	METAL CHIP	470	5%	1/10W
R665	1-216-819-11	METAL CHIP	680	5%	1/10W
R666	1-216-821-11	METAL CHIP	1K	5%	1/10W
R667	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R668	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R669	1-216-825-11	METAL CHIP	2.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R670	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R671	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R674	1-216-835-11	METAL CHIP	15K	5%	1/10W
R675	1-216-835-11	METAL CHIP	15K	5%	1/10W
R676	1-216-835-11	METAL CHIP	15K	5%	1/10W
R677	1-216-864-11	SHORT CHIP	0		
R678	1-216-845-11	METAL CHIP	100K	5%	1/10W
R679	1-216-162-00	RES-CHIP	33	5%	1/8W
R680	1-216-838-11	METAL CHIP	27K	5%	1/10W
R681	1-216-849-11	METAL CHIP	220K	5%	1/10W
R682	1-216-833-11	METAL CHIP	10K	5%	1/10W
R683	1-216-849-11	METAL CHIP	220K	5%	1/10W
R684	1-216-821-11	METAL CHIP	1K	5%	1/10W
R685	1-216-841-11	METAL CHIP	47K	5%	1/10W
R686	1-216-841-11	METAL CHIP	47K	5%	1/10W
R687	1-216-833-11	METAL CHIP	10K	5%	1/10W
R688	1-216-817-11	METAL CHIP	470	5%	1/10W
R689	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R690	1-216-809-11	METAL CHIP	100	5%	1/10W
R691	1-216-809-11	METAL CHIP	100	5%	1/10W
R692	1-216-809-11	METAL CHIP	100	5%	1/10W
R693	1-216-809-11	METAL CHIP	100	5%	1/10W
R694	1-216-809-11	METAL CHIP	100	5%	1/10W
R695	1-216-809-11	METAL CHIP	100	5%	1/10W
R696	1-216-809-11	METAL CHIP	100	5%	1/10W
R697	1-216-809-11	METAL CHIP	100	5%	1/10W
R698	1-216-182-00	RES-CHIP	220	5%	1/8W
R700	1-216-182-00	RES-CHIP	220	5%	1/8W
R702	1-216-182-00	RES-CHIP	220	5%	1/8W
R704	1-216-182-00	RES-CHIP	220	5%	1/8W
R706	1-216-182-00	RES-CHIP	220	5%	1/8W
R708	1-216-182-00	RES-CHIP	220	5%	1/8W
R710	1-216-833-11	METAL CHIP	10K	5%	1/10W
R711	1-216-833-11	METAL CHIP	10K	5%	1/10W
R712	1-216-797-11	METAL CHIP	10	5%	1/10W
R713	1-216-797-11	METAL CHIP	10	5%	1/10W
R714	1-216-809-11	METAL CHIP	100	5%	1/10W
R715	1-216-805-11	METAL CHIP	47	5%	1/10W
R716	1-216-837-11	METAL CHIP	22K	5%	1/10W
R717	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R718	1-216-837-11	METAL CHIP	22K	5%	1/10W
R719	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R720	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R721	1-216-833-11	METAL CHIP	10K	5%	1/10W
R722	1-216-835-11	METAL CHIP	15K	5%	1/10W
R727	1-220-397-11	METAL CHIP	4.7M	5%	1/10W
R728	1-220-397-11	METAL CHIP	4.7M	5%	1/10W
R729	1-216-809-11	METAL CHIP	100	5%	1/10W
R730	1-216-809-11	METAL CHIP	100	5%	1/10W
R732	1-216-853-11	METAL CHIP	470K	5%	1/10W
R733	1-216-809-11	METAL CHIP	100	5%	1/10W
R734	1-216-821-11	METAL CHIP	1K	5%	1/10W
R735	1-216-821-11	METAL CHIP	1K	5%	1/10W
R736	1-216-821-11	METAL CHIP	1K	5%	1/10W
R737	1-216-845-11	METAL CHIP	100K	5%	1/10W
R738	1-216-845-11	METAL CHIP	100K	5%	1/10W
R739	1-216-845-11	METAL CHIP	100K	5%	1/10W
R740	1-216-845-11	METAL CHIP	100K	5%	1/10W
R741	1-216-845-11	METAL CHIP	100K	5%	1/10W
R742	1-216-845-11	METAL CHIP	100K	5%	1/10W
R743	1-216-845-11	METAL CHIP	100K	5%	1/10W
R744	1-216-845-11	METAL CHIP	100K	5%	1/10W
R745	1-216-845-11	METAL CHIP	100K	5%	1/10W
R746	1-216-845-11	METAL CHIP	100K	5%	1/10W
R747	1-216-845-11	METAL CHIP	100K	5%	1/10W
R748	1-216-845-11	METAL CHIP	100K	5%	1/10W
R749	1-216-845-11	METAL CHIP	100K	5%	1/10W
R750	1-216-845-11	METAL CHIP	100K	5%	1/10W
R751	1-216-845-11	METAL CHIP	100K	5%	1/10W
R752	1-216-845-11	METAL CHIP	100K	5%	1/10W
R753	1-216-845-11	METAL CHIP	100K	5%	1/10W
R754	1-216-845-11	METAL CHIP	100K	5%	1/10W
R755	1-216-845-11	METAL CHIP	100K	5%	1/10W
R756	1-216-845-11	METAL CHIP	100K	5%	1/10W
R757	1-216-845-11	METAL CHIP	100K	5%	1/10W
R758	1-216-845-11	METAL CHIP	100K	5%	1/10W
R759	1-216-845-11	METAL CHIP	100K	5%	1/10W
R760	1-216-845-11	METAL CHIP	100K	5%	1/10W
R761	1-216-845-11	METAL CHIP	100K	5%	1/10W
R762	1-216-845-11	METAL CHIP	100K	5%	1/10W
R763	1-216-845-11	METAL CHIP	100K	5%	1/10W
R764	1-216-845-11	METAL CHIP	100K	5%	1/10W
R765	1-216-845-11	METAL CHIP	100K	5%	1/10W
R766	1-216-845-11	METAL CHIP	100K	5%	1/10W
R767	1-216-845-11	METAL CHIP	100K	5%	1/10W
R768	1-216-845-11	METAL CHIP	100K	5%	1/10W
R769	1-216-845-11	METAL CHIP	100K	5%	1/10W
R770	1-216-845-11	METAL CHIP	100K	5%	1/10W
R771	1-216-841-11	METAL CHIP	47K	5%	1/10W
R772	1-216-821-11	METAL CHIP	1K	5%	1/10W
R773	1-216-809-11	METAL CHIP	100	5%	1/10W
R775	1-216-809-11	METAL CHIP	100	5%	1/10W
R776	1-216-809-11	METAL CHIP	100	5%	1/10W
R777	1-216-809-11	METAL CHIP	100	5%	1/10W
R778	1-216-809-11	METAL CHIP	100	5%	1/10W
R779	1-216-809-11	METAL CHIP	100	5%	1/10W
R780	1-216-809-11	METAL CHIP	100	5%	1/10W
R784	1-216-809-11	METAL CHIP	100	5%	1/10W
R786	1-216-833-11	METAL CHIP	10K	5%	1/10W
R787	1-216-809-11	METAL CHIP	100	5%	1/10W
R788	1-216-809-11	METAL CHIP	100	5%	1/10W
R790	1-216-821-11	METAL CHIP	1K	5%	1/10W
R791	1-216-809-11	METAL CHIP	100	5%	1/10W
R792	1-216-809-11	METAL CHIP	100	5%	1/10W
R793	1-216-809-11	METAL CHIP	100	5%	1/10W
R794	1-216-809-11	METAL CHIP	100	5%	1/10W
R795	1-216-809-11	METAL CHIP	100	5%	1/10W
R796	1-216-809-11	METAL CHIP	100	5%	1/10W
R797	1-216-821-11	METAL CHIP	1K	5%	1/10W
R798	1-216-821-11	METAL CHIP	1K	5%	1/10W
R799	1-216-821-11	METAL CHIP	1K	5%	1/10W
R854	1-216-813-11	METAL CHIP	220	5%	1/10W
R863	1-216-162-00	RES-CHIP	33	5%	1/8W
R864	1-216-162-00	RES-CHIP	33	5%	1/8W

< SWITCH >

S601	1-762-875-21	SWITCH, KEYBOARD (I/⏻)
S602	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)
S603	1-762-875-21	SWITCH, KEYBOARD (EQ BAND)
S604	1-762-875-21	SWITCH, KEYBOARD (DISC 1)

Ref. No.	Part No.	Description	Remark
S605	1-762-875-21	SWITCH, KEYBOARD (DISC 2)	
S606	1-762-875-21	SWITCH, KEYBOARD (DISC 3)	
S607	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)	
S608	1-762-875-21	SWITCH, KEYBOARD (⏏)	
S609	1-762-875-21	SWITCH, KEYBOARD (KARAOKE/MPX)	
S610	1-762-875-21	SWITCH, KEYBOARD (P FILE)	
S611	1-762-875-21	SWITCH, KEYBOARD (PRESET EQ)	
S612	1-762-875-21	SWITCH, KEYBOARD (ENTER)	
S621	1-762-875-21	SWITCH, KEYBOARD (CD)	
S622	1-762-875-21	SWITCH, KEYBOARD (TUNER BAND)	
S623	1-762-875-21	SWITCH, KEYBOARD (TAPE A/B)	
S624	1-762-875-21	SWITCH, KEYBOARD (GAME)	
S626	1-762-875-21	SWITCH, KEYBOARD (ILLUMINATION)	
S627	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE/TUNING MODE)	
S628	1-762-875-21	SWITCH, KEYBOARD (GAME MIXING)	
S629	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)	
S630	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)	
S641	1-762-875-21	SWITCH, KEYBOARD (GROOVE)	
S642	1-762-875-21	SWITCH, KEYBOARD (SURROUND)	
S643	1-762-875-21	SWITCH, KEYBOARD (EFFECT ON/OFF)	
S644	1-762-875-21	SWITCH, KEYBOARD (TUNING +)	
S645	1-762-875-21	SWITCH, KEYBOARD (▷)	
S646	1-762-875-21	SWITCH, KEYBOARD (▶▶ ALBUM +)	
S647	1-762-875-21	SWITCH, KEYBOARD (◀◀ ALBUM –)	
S648	1-762-875-21	SWITCH, KEYBOARD (▮▮)	
S649	1-762-875-21	SWITCH, KEYBOARD (■)	
S650	1-762-875-21	SWITCH, KEYBOARD (TUNING –)	
		< VIBRATOR >	
X601	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)	
X602	1-795-004-21	VIBRATOR, CERAMIC (10MHz)	
**********			
		REM BOARD	
		**********	
		< CONNECTOR >	
CN610	1-816-423-11	SOCKET, CONNECTOR 3P	
		< IC >	
IC610	6-600-174-01	IC RPM7240-H4 (IR)	
		< JUMPER RESISTOR >	
JR624	1-216-296-11	SHORT CHIP 0	
**********			
	1-687-132-12	SENSOR BOARD	
		**********	
		< CONNECTOR >	
CN731	1-785-329-21	PIN, CONNECTOR (LIGHT ANGLE) 3P	
		< IC >	
IC731	6-600-022-01	IC RPI-576	
**********			

Ref. No.	Part No.	Description	Remark
		SUB TRANS BOARD	
		**********	
		< CONNECTOR >	
CN901	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P	
		< DIODE >	
D901	8-719-991-33	DIODE 1SS133T-77	
D902	6-500-522-21	DIODE 10EDB40-TB3 (EXCEPT TH)	
D902	6-500-522-31	DIODE 10EDB40-TB5 (TH)	
D903	6-500-522-21	DIODE 10EDB40-TB3 (EXCEPT TH)	
D903	6-500-522-31	DIODE 10EDB40-TB5 (TH)	
D904	6-500-522-21	DIODE 10EDB40-TB3 (EXCEPT TH)	
D904	6-500-522-31	DIODE 10EDB40-TB5 (TH)	
D905	6-500-522-21	DIODE 10EDB40-TB3 (EXCEPT TH)	
D905	6-500-522-31	DIODE 10EDB40-TB5 (TH)	
		< TRANSFORMER >	
⚠PT902	X-4956-294-1	TRANS ASSY, SUB	
		< RELAY >	
⚠RY901	1-755-276-11	RELAY, POWER (EXCEPT TH)	
⚠RY901	1-755-276-21	RELAY, POWER (TH)	
		< SWITCH >	
⚠S901	1-786-055-21	SELECTOR, VOLTAGE (VOLTAGE SELECTOR) (EXCEPT TH)	
**********			
	1-687-669-12	SW BOARD	
		**********	
		< SWITCH >	
S751	1-786-514-11	SWITCH, LEVER (SLIDE) (OPEN)	
**********			
		TRANS BOARD	
		**********	
	1-533-217-41	HOLDER, FUSE (TH)	
	1-533-233-11	HOLDER, FUSE (EXCEPT TH)	
		< CAPACITOR >	
C906	1-164-159-11	CERAMIC 0.1uF 50V	
C908	1-128-553-11	ELECT 220uF 20% 63V	
C909	1-126-964-11	ELECT 10uF 20% 50V	
C910	1-126-968-11	ELECT 100uF 20% 50V	
C911	1-126-942-61	ELECT 1000uF 20% 25V	
		< CONNECTOR >	
CN904	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P (TH)	
CN904	1-568-106-11	PIN, CONNECTOR (3.96mm PITCH) 4P (EXCEPT TH)	
CN905	1-564-506-11	PLUG, CONNECTOR 3P	
CN906	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P	
* CN907	1-764-333-11	PLUG, CONNECTOR 10P	
		< DIODE >	
D906	8-719-110-69	DIODE RD27ESB4 (TH)	
D906	8-719-983-79	DIODE MTZJ-T-72-27D (EXCEPT TH)	
D908	6-500-522-21	DIODE 10EDB40-TB3 (EXCEPT TH)	
D908	6-500-522-31	DIODE 10EDB40-TB5 (TH)	

HCD-RV222
Ver. 1.1

TRANS **VCD CONNECT** **VIDEO OUT** **VMP43GY**

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q902	8-729-140-97	TRANSISTOR 2SB734-34			
		< RESISTOR >			
R903	1-249-430-11	CARBON	12K	5%	1/4W
R904	1-249-417-11	CARBON	1K	5%	1/4W
⚠R908	1-202-972-61	FUSIBLE	1	5%	1/4W F (EXCEPT TH)
⚠R908	1-217-831-11	FUSIBLE	1	5%	1/4W F (TH)
**********					
		VCD CONNECT BOARD			
		**********			
		< CAPACITOR >			
C881	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C882	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C883	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C884	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C885	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
		< CONNECTOR >			
CN881	1-784-780-11	CONNECTOR, FFC 19P			
CN882	1-568-830-11	CONNECTOR, FFC 11P			
**********					
		VIDEO OUT BOARD			
		**********			
		< CAPACITOR >			
C840	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN805	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< JUMPER RESISTOR >			
FB801	1-216-864-11	SHORT CHIP	0		
FB802	1-216-864-11	SHORT CHIP	0		
		< JACK >			
J803	1-794-970-11	JACK, PIN 1P (VIDEO OUT)			
**********					
	A-1112-636-A	VMP43GY BOARD, COMPLETE (EXCEPT TH)			
	A-4752-391-A	VMP43GY BOARD, COMPLETE (TH)			
		**********			
		< CAPACITOR >			
C104	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C105	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C106	1-164-670-11	CERAMIC CHIP	1200PF	5%	16V
C114	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C115	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C116	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C154	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C155	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C156	1-164-670-11	CERAMIC CHIP	1200PF	5%	16V
C201	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C202	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C203	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C204	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C205	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C206	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C207	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C208	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C209	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C210	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C211	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C212	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C213	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C214	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C221	1-124-779-00	ELECT CHIP	10uF	20%	16V
C222	1-124-779-00	ELECT CHIP	10uF	20%	16V
C223	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C224	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C253	1-216-864-11	SHORT CHIP	0		
C254	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C255	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C257	1-128-065-11	ELECT CHIP	68uF	20%	10V
C258	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C259	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C321	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C322	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C323	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C338	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C360	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C361	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C362	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C364	1-124-779-00	ELECT CHIP	10uF	20%	16V
C365	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C366	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C501	1-124-779-00	ELECT CHIP	10uF	20%	16V
C502	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C503	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C504	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C505	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C510	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C511	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C521	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C522	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C523	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C524	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C525	1-126-193-11	ELECT CHIP	1uF	20%	50V
C533	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C534	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C535	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C536	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C537	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C538	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C539	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C540	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C541	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C542	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C543	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C544	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C545	1-126-193-11	ELECT CHIP	1uF	20%	50V
C546	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C547	1-126-193-11	ELECT CHIP	1uF	20%	50V

Ref. No.	Part No.	Description			Remark
C548	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C549	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C550	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C551	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C552	1-126-193-11	ELECT CHIP	1uF	20%	50V
C561	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C566	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C567	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C570	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C571	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C572	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C573	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C574	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C575	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C576	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C581	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C582	1-124-779-00	ELECT CHIP	10uF	20%	16V
C583	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C584	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C596	1-124-779-00	ELECT CHIP	10uF	20%	16V
C597	1-124-779-00	ELECT CHIP	10uF	20%	16V
		< CONNECTOR >			
CN101	1-784-328-51	CONNECTOR, FFC/FPC 29P			
CN201	1-778-874-11	CONNECTOR, FFC (LIF(NON-ZIF)) 19P			
CN301	1-794-509-11	PIN, CONNECTOR (PC BOARD) 3P			
		< FERRITE BEAD >			
FB201	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)			
FB251	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)			
FB252	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)			
FB360	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)			
FB501	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)			
FB502	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)			
FB503	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)			
FB504	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)			
FB561	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)			
		< FILTER >			
FL201	1-234-177-21	FILTER, CHIP EMI			
FL501	1-234-177-21	FILTER, CHIP EMI			
FL502	1-234-177-21	FILTER, CHIP EMI			
FL503	1-234-177-21	FILTER, CHIP EMI			
FL504	1-234-177-21	FILTER, CHIP EMI			
		< IC >			
IC102	8-759-701-40	IC NJM3404AM-T1			
IC201	6-700-394-01	IC BA25BC0FP-E2			
IC202	6-705-468-01	IC BA33BC0FP-E2			
IC307	6-702-001-01	IC BD7600FV-E2			
IC504	8-759-825-13	IC PCM1748E/2K			
IC505	8-752-417-93	IC CXD1887R			
IC506	6-702-000-01	IC BU2507FV-E2			
IC507	6-707-759-01	IC A2V28S40BTP-G75-T			
IC508	6-804-135-01	IC MR27V401E-0G7MAZ03B			
		< JUMPER RESISTOR >			
JW203	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
		< COIL >			
L102	1-410-373-31	INDUCTOR	2.2uH		
L321	1-410-381-11	INDUCTOR	10uH		
		< TRANSISTOR >			
Q201	8-729-140-75	TRANSISTOR	2SD999-CLCK		
Q301	8-729-602-36	TRANSISTOR	2SA1602-F		
Q370	8-729-028-96	TRANSISTOR	DTC114EUA-T106		
Q581	8-729-602-21	TRANSISTOR	2SC4154-F		
		< RESISTOR >			
R102	1-216-809-11	METAL CHIP	100	5%	1/10W
R107	1-216-833-11	METAL CHIP	10K	5%	1/10W
R108	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R109	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R114	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R115	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R152	1-216-809-11	METAL CHIP	100	5%	1/10W
R157	1-216-833-11	METAL CHIP	10K	5%	1/10W
R158	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R159	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R201	1-216-809-11	METAL CHIP	100	5%	1/10W
R202	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-813-11	METAL CHIP	220	5%	1/10W
R322	1-216-864-11	SHORT CHIP	0		
R323	1-216-817-11	METAL CHIP	470	5%	1/10W
R375	1-211-990-11	METAL CHIP	75	0.5%	1/10W
R376	1-216-833-11	METAL CHIP	10K	5%	1/10W
R502	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R503	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-216-809-11	METAL CHIP	100	5%	1/10W
R505	1-216-809-11	METAL CHIP	100	5%	1/10W
R506	1-216-809-11	METAL CHIP	100	5%	1/10W
R507	1-216-809-11	METAL CHIP	100	5%	1/10W
R508	1-216-809-11	METAL CHIP	100	5%	1/10W
R509	1-216-809-11	METAL CHIP	100	5%	1/10W
R510	1-216-809-11	METAL CHIP	100	5%	1/10W
R511	1-216-809-11	METAL CHIP	100	5%	1/10W
R512	1-216-809-11	METAL CHIP	100	5%	1/10W
R513	1-216-833-11	METAL CHIP	10K	5%	1/10W
R516	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R517	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R522	1-216-833-11	METAL CHIP	10K	5%	1/10W
R531	1-216-845-11	METAL CHIP	100K	5%	1/10W
R532	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R533	1-216-839-11	METAL CHIP	33K	5%	1/10W
R534	1-216-864-11	SHORT CHIP	0		
R537	1-216-864-11	SHORT CHIP	0		
R538	1-216-833-11	METAL CHIP	10K	5%	1/10W
R541	1-216-864-11	SHORT CHIP	0		
R542	1-216-864-11	SHORT CHIP	0		
R543	1-216-853-11	METAL CHIP	470K	5%	1/10W
R544	1-216-857-11	METAL CHIP	1M	5%	1/10W
R545	1-216-821-11	METAL CHIP	1K	5%	1/10W
R546	1-216-848-11	METAL CHIP	180K	5%	1/10W
R547	1-216-833-11	METAL CHIP	10K	5%	1/10W
R548	1-216-855-11	METAL CHIP	680K	5%	1/10W
R549	1-216-845-11	METAL CHIP	100K	5%	1/10W
R550	1-216-833-11	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R551	1-218-852-11	METAL CHIP	1.6K	0.5%	1/10W
R552	1-216-820-11	METAL CHIP	820	5%	1/10W
R554	1-216-797-11	METAL CHIP	10	5%	1/10W
R555	1-216-797-11	METAL CHIP	10	5%	1/10W
R556	1-216-797-11	METAL CHIP	10	5%	1/10W
R557	1-216-797-11	METAL CHIP	10	5%	1/10W
R558	1-216-857-11	METAL CHIP	1M	5%	1/10W
R559	1-216-817-11	METAL CHIP	470	5%	1/10W
R561	1-216-821-11	METAL CHIP	1K	5%	1/10W
R581	1-216-809-11	METAL CHIP	100	5%	1/10W
R582	1-216-817-11	METAL CHIP	470	5%	1/10W
		< VIBRATOR >			
X501	1-767-518-11	VIBRATOR, CRYSTAL (33.8688MHz)			
X502	1-767-519-11	VIBRATOR, CRYSTAL (27MHz)			
**********					
		6 STREAM LED BOARD			
		**********			
		< DIODE >			
LED610	6-500-809-01	LED SELU5223C-STP15 (ILLUMINATION)			
LED611	6-500-809-01	LED SELU5223C-STP15 (ILLUMINATION)			
LED612	6-500-809-01	LED SELU5223C-STP15 (ILLUMINATION)			
LED613	6-500-809-01	LED SELU5223C-STP15 (ILLUMINATION)			
LED614	6-500-809-01	LED SELU5223C-STP15 (ILLUMINATION)			
LED615	6-500-809-01	LED SELU5223C-STP15 (ILLUMINATION)			
		< RESISTOR >			
R673	1-216-837-11	METAL CHIP	22K	5%	1/10W
R699	1-216-182-00	RES-CHIP	220	5%	1/8W
R701	1-216-182-00	RES-CHIP	220	5%	1/8W
R703	1-216-182-00	RES-CHIP	220	5%	1/8W
R705	1-216-182-00	RES-CHIP	220	5%	1/8W
R707	1-216-182-00	RES-CHIP	220	5%	1/8W
R709	1-216-182-00	RES-CHIP	220	5%	1/8W
		< ROTARY ENCODER >			
S660	1-418-632-11	ENCODER, ROTARY (MASTER VOLUME)			
		< SWITCH >			
SW601	1-786-289-11	SWITCH, DETECTION (⏮ – EQ + ⏭)			
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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
6	1-769-940-11	WIRE (FLAT TYPE) (11 CORE)	
52	1-796-485-41	DECK, MECHANICAL (TH)	
52	1-796-485-51	DECK, MECHANICAL (EXCEPT TH)	
53	1-769-975-11	WIRE (FLAT TYPE) (13 CORE)	
57	1-765-325-11	WIRE (FLAT TYPE) (11 CORE)	
58	1-773-282-11	WIRE (FLAT TYPE) (29 CORE)	
⚠206	1-777-071-83	CORD, POWER (E12,SP)	
⚠206	1-824-818-21	CORD, POWER (WITH CONNECTOR)	
⚠206	1-829-627-11	CORD, POWER (E3,E15)	
259	1-828-938-51	WIRE (FLAT TYPE) (5 CORE)	
316	1-773-122-11	WIRE (FLAT TYPE) (19 CORE)	
352	1-471-035-11	MAGNET ASSY (TH)	
352	1-471-035-21	MAGNET ASSY (EXCEPT TH)	
364	1-775-265-11	WIRE (FLAT TYPE) (29 CORE)	
⚠402	8-820-122-01	OPTICAL PICK-UP (KSM213DHAP/Z-NP)	
403	1-782-817-11	WIRE (FLAT TYPE) (16 CORE)	
⚠F904	1-533-949-33	FUSE, CYLINDRICAL (TIME LUG) (T8AL/250V)	
⚠F905	1-533-949-33	FUSE, CYLINDRICAL (TIME LUG) (T8AL/250V)	
⚠F906	1-532-465-33	FUSE (3.15A/250V)	
⚠F907	1-532-465-33	FUSE (3.15A/250V)	
FAN901	1-763-072-11	FAN, DC	
FC901	1-500-386-31	FILTER, CLAMP (FERRITE CORE)	
M741	A-1108-965-A	MOTOR ASSY, TABLE (TABLE)	
M751	A-1108-966-A	MOTOR ASSY, LOADING (LOADING) (EXCEPT TH)	
M751	A-4737-553-A	MOTOR ASSY, LOADING (LOADING) (TH)	
⚠PT901	1-443-237-21	TRANSFORMER, POWER	
RE701	1-477-680-12	ENCODER, ROTARY	
TM901	1-693-603-31	TUNER (FM/AM) (ANTENNA)	
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		ACCESSORIES	
		**********	
⚠	1-569-007-12	ADAPTOR, CONVERSION (E3,E15)	
⚠	1-569-008-21	ADAPTOR, CONVERSION (SP)	

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2005. 11	New
1.1	2005. 12	E3, E12, Iran and Singapore model addition.